



THE COMPLETE

YEAR 6 SATS MATHS

REVISION WORKBOOK

WITH ANSWERS



Year 6 SATs Maths Revision Booklet

Name: _____

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1- Column addition

1) Line up the digits in the correct place value column

3	4	8	4	6
+	3	4	2	3
<hr/>				
<hr/>				

2) Starting from the right, add the digits

3	4	8	4	6
+	3	4	2	3
<hr/>				
		6	9	
<hr/>				

3) If the digits make ten or more, place the tens digit in the next column

3	4	8	4	6
+	3	4	2	3
<hr/>				
	2	6	9	
<hr/>				
1				

4) Include the exchanged digit in the next addition

3	4	8	4	6
+	3	4	2	3
<hr/>				
3	8	2	6	9
<hr/>				
1				

1 $54,382 + 946 =$

2 $80,315 + 7,492 =$

3 $462,901 + 8,314 =$

4 $129,450 + 37,812 =$

2- Column subtraction

1) Line up the digits in the correct place value column

6	2	8	4	6	
-		3	4	2	3
<hr/>					
<hr/>					

2) Starting from the right, subtract the bottom digit from the top digit

6	2	8	4	6	
-		3	4	2	3
<hr/>					
		4	2	3	
<hr/>					

3) If the top digit is less than the bottom digit, exchange from the column to the left

5	1	2	8	4	6
6		3	4	2	3
<hr/>					
		4	2	3	
<hr/>					

4) Continue the subtraction

5	1	2	8	4	6
6		3	4	2	3
<hr/>					
5	9	4	2	3	
<hr/>					

1 $84,512 - 3,406 =$

2 $705,918 - 42,507 =$

3 $63,407 - 8,291 =$

4 $512,039 - 7,854 =$

3- Missing numbers

If the whole and one of the parts are known, subtract the known part from the whole.

70	
50	?

$50 + \underline{\quad} = 70$ $70 - \underline{\quad} = 50$
 $\underline{\quad} + 50 = 70$ $50 = 70 - \underline{\quad}$
 $70 = \underline{\quad} + 50$
 $70 = 50 + \underline{\quad}$

If both parts are known but the whole is not, add the known parts together.

?	
50	20

$\underline{\quad} - 50 = 20$
 $20 = \underline{\quad} - 50$

1 $248 + \underline{\quad} = 315$

2 $542 = 389 + \underline{\quad}$

3 $1,204 - \underline{\quad} = 886$

4 $729 = \underline{\quad} - 273$

4- Multiply using known facts

$$7,000 \times 2 =$$

1) Identify the multiplication fact known

$$7,000 \times 2 =$$

$$7 \times 2 = 14$$

2) If the calculation is 10, 100 or 1,000 times bigger than the multiplication fact, the answer will be too.

- $7 \times 2 = 14$
- $70 \times 2 = 140$
- $700 \times 2 = 1,400$
- $7,000 \times 2 = 14,000$

1 $300 \times 8 =$

2 $7 \times 400 =$

3 $9 \times 2,000 =$

4 $80 \times 30 =$

5- Divide using known facts

$$7,000 \times 2 =$$

1) Identify the multiplication fact known

$$14,000 \div 2 =$$

$$14 \div 2 = 7$$

2) If the calculation is 10, 100 or 1,000 times bigger than the multiplication fact, the answer will be too.

$$\begin{aligned} 14 \div 2 &= 7 \\ 140 \div 2 &= 70 \\ 1,400 \div 2 &= 700 \\ 14,000 \div 2 &= 7,000 \end{aligned}$$

1 $560 \div 7 =$

2 $4,500 \div 9 =$

3 $320 \div 4 =$

4 $8,100 \div 9 =$

6- Multiply by 10, 100 and 1,000

H	T	O	t	h	th
		0	• 3	4	5
		3	• 4	5	
	3	4	• 5		
3	4	5	•		

$$0.345 \times 10 = 3.45$$

$$0.345 \times 100 = 34.5$$

$$0.345 \times 1,000 = 345$$

When multiplying by 10, move each digit one place value column to the left.
 When multiplying by 100, move each digit two place value columns to the left.
 When multiplying by 1,000, move each digit three place value columns to the left.

1 $5.6 \times 10 =$

2 $0.605 \times 100 =$

3 $1,000 \times 6.3 =$

4 $0.07 \times 100 =$

7- Divide by 10, 100 and 1,000

H	T	O	•	t	h	th
3	4	5	•			
	3	4	•	5		
		3	•	4	5	
		0	•	3	4	5

$$345 \div 10 = 34.5$$

$$345 \div 100 = 3.45$$

$$345 \div 1,000 = 0.345$$

When dividing by 10, move each digit one place value column to the right.
 When dividing by 100, move each digit two place value columns to the right.
 When dividing by 1,000, move each digit three place value columns to the right.

1 $560 \div 100 =$

2 $5.9 \div 10 =$

3 $6,400 \div 1,000 =$

4 $2,004 \div 100 =$

8- Short multiplication

1) Lay out the calculation.

	4	6	4	3	
x					2
<hr/>					
<hr/>					

2) Starting from the right, multiply each digit by the multiplier

	4	6	4	3	
x					2
<hr/>					
			8	6	
<hr/>					

3) If the product is greater than 9, write the tens digit under the next column

	4	6	4	3	
x					2
<hr/>					
		2	8	6	
<hr/>					
	1				

4) Add any exchanged digits to the product in the next column

	4	6	4	3	
x					2
<hr/>					
	9	2	8	6	
<hr/>					
	1				

1 $4,382 \times 6 =$

2 $7 \times 3,105 =$

3 $5,614 \times 8 =$

4 $9 \times 4,207 =$

9- Short multiplication with decimals

1) Lay out the calculation.

	4	6	4	3
x				2
<hr/>				
		•		
<hr/>				

2) Starting from the right, multiply each digit by the multiplier

	4	6	4	3
x				2
<hr/>				
		•	8	6
<hr/>				

3) If the product is greater than 9, write the tens digit under the next column

	4	6	4	3	
x				2	
<hr/>					
		•	2	8	6
<hr/>					
		1			

4) Add any exchanged digits to the product in the next column

	4	6	4	3		
x				2		
<hr/>						
		9	•	2	8	6
<hr/>						
		1				

1 $7.41 \times 6 =$

2 $8 \times 4.276 =$

3 $5.83 \times 7 =$

4 $3 \times 68.47 =$

10- Short division

$$6,492 \div 2 =$$

1) Lay out the calculation.

2	6	4	9	2	

2) Starting from the left, divide each digit by the divisor

	3	2			
2	6	4	9	2	

$$6 \div 2 = 3$$

$$4 \div 2 = 2$$

3) If there is a remainder, include it in the next column to the right

	3	2	4		
2	6	4	9	2	
			1		

$$9 \div 2 = 4$$

$$\text{remainder } 1$$

4) Add any exchanged digits to the product in the next column

	3	2	4	6	
2	6	4	9	2	
			1		

$$12 \div 2 = 6$$

1 $4,824 \div 6 =$

2 $7,392 \div 8 =$

3 $6,468 \div 3 =$

4 $8,316 \div 4 =$

11- Short division with decimal remainders

$$6,492 \div 5 =$$

1) Lay out the calculation.

5	6	4	9	2	

2) Complete the division up to the ones digit

		1	2	5	8
5	6	4	9	2	
		1	4	4	

3) Put a decimal point and place holder in the dividend and a decimal point in the quotient

		1	2	5	8	.
5	6	4	9	2	.	0
		1	4	4		

4) Continue the division

		1	2	9	8	.	4
5	6	4	9	2	.	0	
		1	4	4	2		0

1 $427 \div 5 =$

2 $638 \div 7 =$

3 $713 \div 6 =$

4 $854 \div 9 =$

12- Long multiplication

1) Multiply each of the digits in the top number by the ones digit

	4	2	5	3	
				7	6
2	5	5	1	8	

2) Put a placeholder in the ones column

	4	2	5	3	
				7	6
2	5	5	1	8	
					0

3) Multiply each of the digits in the top number by the tens digit

	4	2	5	3	
				7	6
2	5	5	1	8	
2	9	7	7	1	0

4) Add the two answers together

	4	2	5	3	
				7	6
2	5	5	1	8	
2	9	7	7	1	0
3	2	3	2	2	8

1 $6,453 \times 78 =$

2 $5,973 \times 27 =$

3 $6,342 \times 58 =$

4 $246 \times 52 =$

14- Add and subtract fractions

$$\frac{3}{5} + \frac{2}{3} =$$

PRIMARY MATHS HUB

- 1) Find a common denominator
- 2) Write equivalent fractions with the common denominators
- 3) Complete the addition or subtraction
- 4) Change back to a mixed number if needed

$$\frac{3}{5} \times \frac{3}{3} + \frac{2}{3} \times \frac{5}{5} =$$

$$\frac{9}{15} + \frac{10}{15} = \frac{19}{15} = 1\frac{4}{15}$$

1 $\frac{1}{3} + \frac{1}{6} =$

2 $\frac{5}{8} - \frac{1}{4} =$

3 $\frac{2}{5} + \frac{1}{10} =$

4 $\frac{3}{4} - \frac{1}{6} =$

PRIMARY MATHS HUB

PRIMARY MATHS HUB

15- Add to a mixed number

$$2\frac{3}{5} + \frac{2}{3} =$$

- 1) Add the two fractions together
- 2) Change back to a mixed number if needed
- 3) Add the whole number from the mixed number

$$\frac{3}{5} \times \frac{3}{3} + \frac{2}{3} \times \frac{5}{5} =$$

$$\frac{9}{15} + \frac{10}{15} = \frac{19}{15} = 1\frac{4}{15}$$

$$2 + 1\frac{4}{15} = 3\frac{4}{15}$$

1 $3\frac{3}{4} + \frac{1}{2} =$

2 $5\frac{5}{6} + \frac{1}{3} =$

3 $2\frac{4}{5} + \frac{3}{5} =$

4 $1\frac{7}{8} + \frac{1}{4} =$

16- Add two mixed numbers

$$2\frac{3}{5} + 1\frac{2}{3} =$$

- 1) Add the two fractions together
- 2) Change back to a mixed number if needed
- 3) Add the two whole numbers
- 4) Add the two parts of the answer together

$$\begin{aligned} & \overset{\times 3}{3} + \overset{\times 5}{2} = \\ & \underset{\times 3}{5} \quad \underset{\times 5}{3} \\ & \frac{9}{15} + \frac{10}{15} = \frac{19}{15} = 1\frac{4}{15} \\ & 2 + 1 = 3 \\ & 3 + 1\frac{4}{15} = 4\frac{4}{15} \end{aligned}$$

1 $2\frac{1}{3} + 1\frac{2}{5} =$

2 $1\frac{4}{7} + 2\frac{1}{6} =$

3 $3\frac{2}{9} + 1\frac{3}{8} =$

4 $2\frac{5}{12} + 1\frac{1}{5} =$

19- Multiply mixed numbers by integers

$$8 \times 3\frac{2}{5} =$$

1) Multiply the two whole numbers together

$$8 \times 3 = 24$$

2) Multiply the fraction by the whole number

$$8 \times \frac{2}{5} = \frac{16}{5} = 3\frac{1}{5}$$

3) Add the two parts of the answer together

$$24 + 3\frac{1}{5} = 27\frac{1}{5}$$

1 $3\frac{1}{2} \times 4 =$

2 $2\frac{3}{4} \times 6 =$

3 $5\frac{1}{3} \times 3 =$

4 $8 \times 1\frac{5}{6} =$

20- Multiply pairs of fractions

$$\frac{7}{8} \times \frac{3}{5} =$$

1) Multiply the two numerators together

$$\frac{7}{8} \times \frac{3}{5} = \frac{21}{40}$$

2) Multiply the two denominators together

1 $\frac{3}{4} \times \frac{7}{8} =$

2 $\frac{2}{3} \times \frac{6}{11} =$

3 $\frac{9}{10} \times \frac{4}{5} =$

4 $\frac{1}{8} \times \frac{4}{5} =$

22- Find fractions of numbers

$$\frac{3}{5} \div 40 =$$

1) Divide the number by the denominator
 $40 \div 5 = 8$



2) Multiply the result by the numerator
 $8 \times 3 = 24$

1 $\frac{1}{2}$ of 160 =

2 $\frac{1}{4}$ of 320 =

3 $\frac{3}{5}$ of 250 =

4 $\frac{2}{3}$ of 90 =

23- Subtract mixed numbers

1) Subtract the whole numbers

$$6 - 4 = 2$$

$$6\frac{2}{5} - 4\frac{2}{3} =$$

2) Write the fractions as equivalent fractions with the same denominator

$$2\frac{6}{15} - \frac{10}{15} =$$

3) If the second fraction is bigger than the first, 'borrow' one whole

$$1\frac{21}{15} - \frac{10}{15} = 1\frac{11}{15}$$

4) Complete the subtraction

1	$4\frac{3}{4} - 2\frac{1}{2} =$						

2	$5\frac{5}{6} - 3\frac{1}{3} =$						

3	$3\frac{7}{8} - 1\frac{1}{4} =$						

4	$6\frac{2}{3} - 4\frac{1}{6} =$						

24-Add and subtract decimals

1) Line up the digits in the correct place value column

2) Add place holders

3) Complete the addition or subtraction

H	T	O	t	h	th
	3	4	6		
+		7	4	3	5
<hr/>					
<hr/>					

H	T	O	t	h	th
	3	4	6	0	0
+	0	7	4	3	5
<hr/>					
<hr/>					

H	T	O	t	h	th
	3	4	6	0	0
+	0	7	4	3	5
<hr/>					
	4	2	0	3	5
<hr/>					
	1	1			

1 $5.6 + 4.532 =$

2 $6.3 - 4.785 =$

3 $8.535 - 3.8 =$

4 $15.5 - 9.56 =$

25-Add and subtract whole numbers and decimals

38 - 7.435

1) Line up the digits in the correct place value column

2) Add place holders

3) Complete the addition or subtraction

H	T	O	t	h	th
	3	8			
-		7	4	3	5
<hr/>					
<hr/>					

H	T	O	t	h	th
	3	8	0	0	0
-	0	7	4	3	5
<hr/>					
<hr/>					

H	T	O	t	h	th
	3	8	0	0	0
-	0	7	4	3	5
<hr/>					
	3	0	5	6	5
<hr/>					

1 $14 + 3.726 =$

2 $22.48 - 7 =$

3 $9 + 8.305 =$

4 $18.72 - 5 =$

26- One-step percentages

$50\% = \frac{50}{100} = \frac{1}{2}$ To find 50% of a number, divide it by 2. $50\% \text{ of } 200 = 100$ $50\% \times 200 = 100$	$20\% = \frac{20}{100} = \frac{1}{5}$ To find 20% of a number, divide it by 5. $20\% \text{ of } 200 = 40$ $20\% \times 200 = 40$	$25\% = \frac{25}{100} = \frac{1}{4}$ To find 25% of a number, divide it by 4. $25\% \text{ of } 200 = 50$ $25\% \times 200 = 50$	$10\% = \frac{10}{100} = \frac{1}{10}$ To find 10% of a number, divide it by 10. $10\% \text{ of } 200 = 20$ $10\% \times 200 = 20$	$1\% = \frac{1}{100}$ To find 1% of a number, divide it by 100. $1\% \text{ of } 200 = 2$ $1\% \times 200 = 2$
--	--	--	--	---

1	50% of 84 =							

2	25% of 60 =							

3	20% x 150 =							

4	10% of 470 =							

$$54\% = \frac{54}{100}$$

Find a percentage of a multiple of 100

For multiples of 100, first **divide by 100** then **multiply by the percentage amount**.

54% of 800

- 1) $800 \div 100 = 8$
- 2) $8 \times 54 = 432$

Find a percentage of other numbers

For other numbers, first **multiply by the percentage amount** and then **divide by 100**.

54% of 850

- 1) $54 \times 850 = 45,900$
- 2) $45,900 \div 100 = 459$

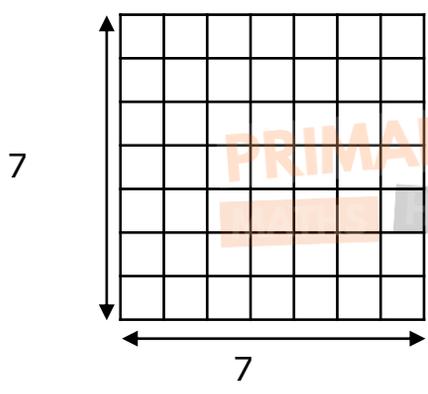
1	54% of 350 =									

2	64% of 5,800 =									

3	82% of 2,600 =									

4	95% of 240 =									

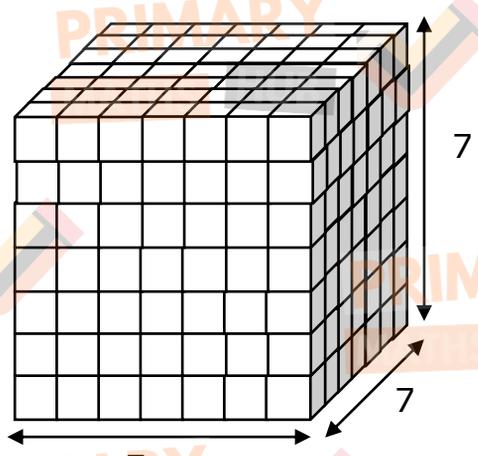
28- Square and cube numbers



$$7^2$$

$$7 \times 7$$

$$\mathbf{49}$$



$$7^3$$

$$7 \times 7 \times 7$$

$$\mathbf{343}$$

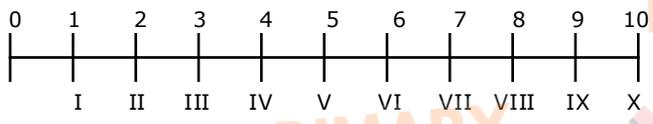
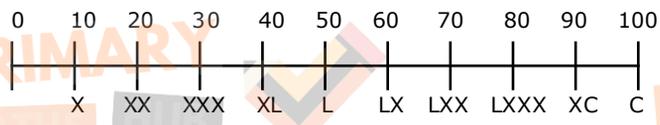
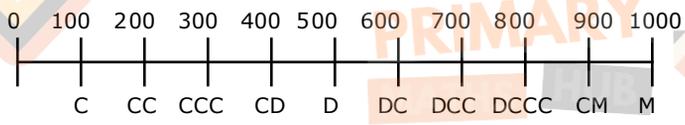
1 $5^2 =$

2 $4^2 =$

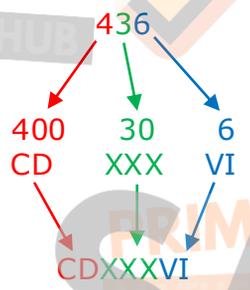
3 $1^3 =$

4 $3^3 =$

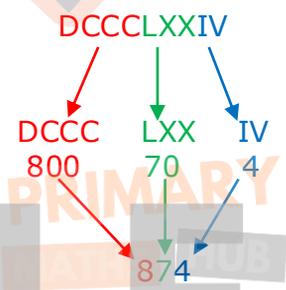
29- Roman numerals



Write Roman numerals



Read Roman numerals



1 760 =

2 984 =

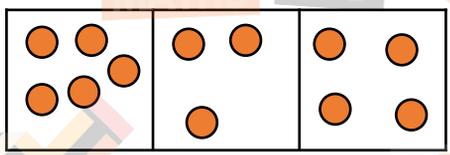
3 CDXII =

4 CMIII =

30- Calculate the mean

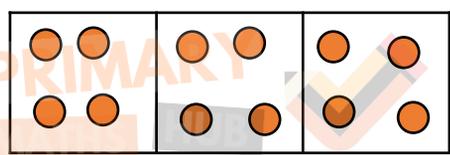
Find the mean of 5, 3 and 4.

1) Add together the values



$$5 + 3 + 4 = 12$$

2) Divide by the amount of values



$$12 \div 3 = 4$$

The mean of 5, 3 and 4 is 4

1	Mean of 4, 6, 8 =									

2	Mean of 3, 5, 7, 9 =									

3	Mean of 2, 4, 6, 8, 10 =									

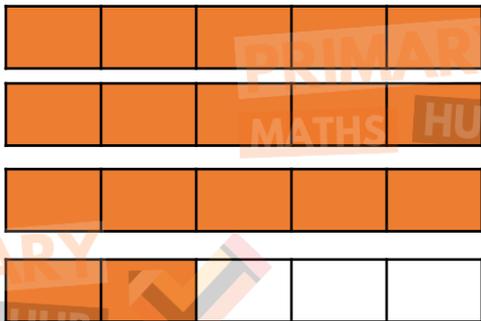
4	Mean of 5, 5, 6, 4 =									

31- Mixed numbers to improper fractions

$$3\frac{2}{5}$$

1) Multiply the denominator by the whole number

$$5 \times 3 = 15$$



2) Add the numerator

$$15 + 2 = 17$$

This becomes the new numerator

$$\frac{17}{5}$$

1 $2\frac{3}{4} =$

2 $5\frac{1}{3} =$

3 $3\frac{5}{6} =$

4 $4\frac{2}{7} =$

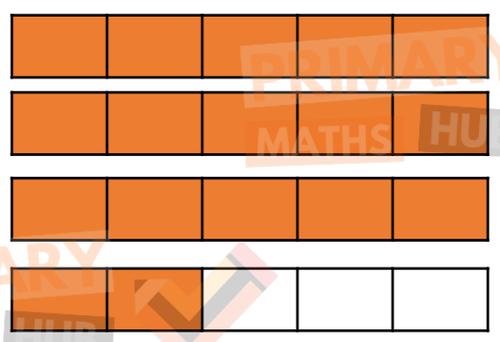
32- Improper fractions to mixed numbers

$$\frac{17}{5}$$

1) Divide the numerator by the denominator

$$17 \div 5 = 3 \text{ remainder } 2$$

2) The quotient becomes the whole number and the remainder becomes the numerator



$$3\frac{2}{5}$$

1 $\frac{17}{4} =$

2 $\frac{29}{6} =$

3 $\frac{25}{7} =$

4 $\frac{19}{5} =$

33- Simplify fractions

$$\frac{15}{60}$$

1) Find a common number that both the numerator and denominator can be divided by. (15)

$$\frac{15 \div 15}{60 \div 15} = \frac{1}{4}$$

2) Divide both the numerator and denominator by that amount

3) If your result can be simplified again, repeat the process

$$\frac{15 \div 5}{60 \div 5} = \frac{3}{12} = \frac{3 \div 3}{12 \div 3} = \frac{1}{4}$$

1	$\frac{6}{8} =$								

2	$\frac{15}{20} =$								

3	$\frac{9}{12} =$								

4	$\frac{14}{21} =$								

34- Fractions and decimals

Fractions to decimals

Method 1: Convert to an equivalent fraction out of 10, 100 or 1,000, then divide the numerator by the denominator

$$\frac{1}{4} = \frac{25}{100}$$

$$25 \div 100 = 0.25$$

Method 2: Divide the numerator by the denominator

$$\frac{1}{4} = 1 \div 4 = 0.25$$

	0	2	5
4	1	0	0
	1	2	

Decimals to fractions

Write as fraction out of 10, 100 or 1,000 and then simplify

$$0.2 = \frac{2}{10} = \frac{1}{5}$$

$$0.25 = \frac{25}{100} = \frac{1}{4}$$

$$0.235 = \frac{235}{1000} = \frac{47}{200}$$

1 $\frac{3}{8} =$

2 $0.6 =$

3 $\frac{7}{10} =$

4 $0.32 =$

35- Fractions and percentages

Fractions to percentages

- 1) Convert to an equivalent fraction out of 100
- 2) Divide the numerator by the denominator. This is the percentage.

$$\frac{1}{4} = \frac{25}{100} = 25\%$$

Percentages to fractions

Write as a fraction out of 100 and then simplify

$$25\% = \frac{25}{100} = \frac{1}{4}$$

1 $\frac{3}{5} =$

2 28% =

3 $\frac{4}{25} =$

4 90% =

36- Decimals and percentages

Decimals to percentages

- 1) Multiply by 100
- 2) Add the percentage symbol

$$0.25 \times 100 = 25$$
$$0.25 = 25\%$$

Percentages to decimals

- 1) Divide the percentage amount by 100

$$25\%$$
$$25 \div 100 = 0.25$$
$$25\% = 0.25$$

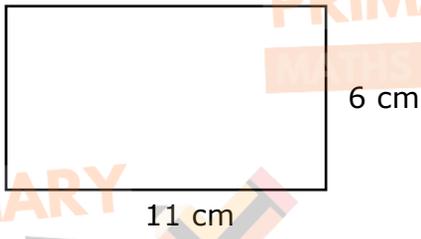
1	0.05 =																		

2	30% =																		

3	0.8 =																		

4	99% =																		

37- Area and perimeter of rectangles



Area

Multiply the length by the width

$$11 \text{ cm} \times 6 \text{ cm} = 66 \text{ cm}^2$$

Perimeter

Add together all **4** sides

$$11 \text{ cm} + 11 \text{ cm} + 6 \text{ cm} + 6 \text{ cm} = 34 \text{ cm}$$

1

12 cm
4 cm

area = _____
perimeter = _____

2

3 cm
8 cm

area = _____
perimeter = _____

3

11 cm
5 cm

area = _____
perimeter = _____

4

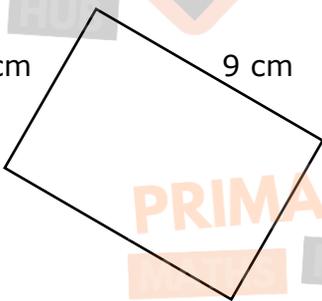
12 cm
30 cm

area = _____
perimeter = _____

Not to scale

37- Area and perimeter of rectangles

5



6 cm 9 cm

area = _____
perimeter = _____

6



20 cm

50 cm

area = _____
perimeter = _____

7



10 cm

30 cm

area = _____
perimeter = _____

8



4 cm

15 cm

area = _____
perimeter = _____

9



8 cm

5 cm

area = _____
perimeter = _____

10



9 cm

40 cm

area = _____
perimeter = _____

11

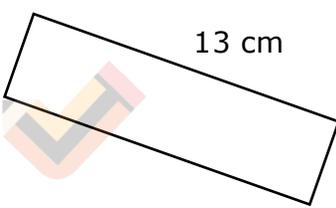


3 cm

7 cm

area = _____
perimeter = _____

12

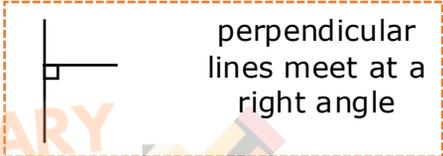


13 cm

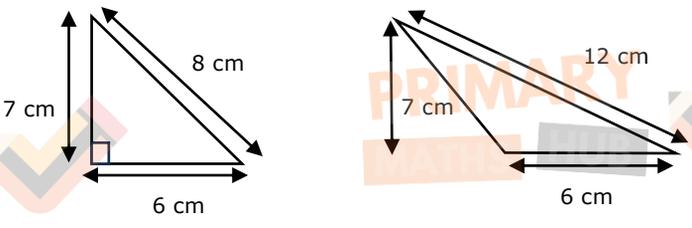
3 cm

area = _____
perimeter = _____

38- Area of triangles and parallelograms

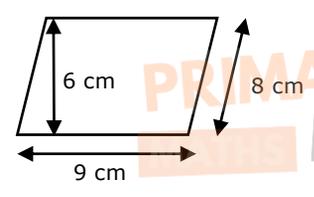


Area of triangles



- 1) Multiply the base by the perpendicular height
 $6 \text{ cm} \times 7 \text{ cm} = 42 \text{ cm}^2$
- 2) Divide the answer by 2
 $42 \text{ cm}^2 \div 2 = 21 \text{ cm}^2$

Area of parallelograms



Multiply the base by the perpendicular height
 $9 \text{ cm} \times 6 \text{ cm} = 54 \text{ cm}^2$

1

area = _____

2

area = _____

3

area = _____

4

area = _____

Not to scale

38- Area of triangles and parallelograms

5

12 cm

12 cm

10 cm

area = _____

6

3 cm

4 cm

5 cm

area = _____

7

10 cm

8 cm

6 cm

area = _____

8

5 cm

12 cm

4 cm

area = _____

9

12 cm

8 cm

10 cm

area = _____

10

5 cm

4 cm

3 cm

area = _____

11

11 cm

4 cm

6 cm

area = _____

12

5 cm

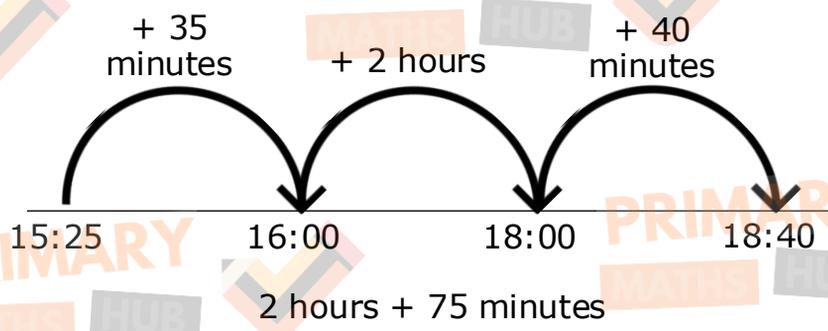
4 cm

8 cm

area = _____

39- Calculate time differences

A cooking class begins at 15:25 and ends at 18:40. How long does it last?



Answer: 3 hours and 15 minutes

- 1) Draw a blank timeline.
- 2) Calculate the time to the next hour.
- 3) Calculate the number of full hours
- 4) Calculate the remaining minutes
- 5) Add the hours and minutes together. Remember- there are 60 minutes in one hour!

1	<p>A class begins at 08:15 and finishes at 10:45. How long does it last?</p> <p>_____ hours _____ minutes</p>
---	---

2	<p>A movie starts at 14:20 and ends at 16:50. How long does it last?</p> <p>_____ hours _____ minutes</p>
---	---

3	<p>A meeting starts at 09:05 and ends at 11:00. How long does it last?</p> <p>_____ hours _____ minutes</p>
---	---

4	<p>A workshop begins at 12:30 and ends at 15:15. How long does it last?</p> <p>_____ hours _____ minutes</p>
---	--

Not to scale

39- Calculate time differences

5 A football match starts at 18:10 and finishes at 20:00. How long does it last?

_____ hours _____ minutes

6 A school trip sets off at 07:45 and returns at 10:30. How long are the children out for?

_____ hours _____ minutes

7 A rehearsal begins at 13:00 and ends at 15:30. How long does it last?

_____ hours _____ minutes

8 A performance starts at 10:10 and ends at 12:25. How long does it last?

_____ hours _____ minutes

9 A swimming session begins at 16:40 and ends at 18:00. How long does it last?

_____ hours _____ minutes

10 A morning shift starts at 06:25 and ends at 09:10. How long is the shift?

_____ hours _____ minutes

11 A film begins at 11:50 and finishes at 13:35. How long does it last?

_____ hours _____ minutes

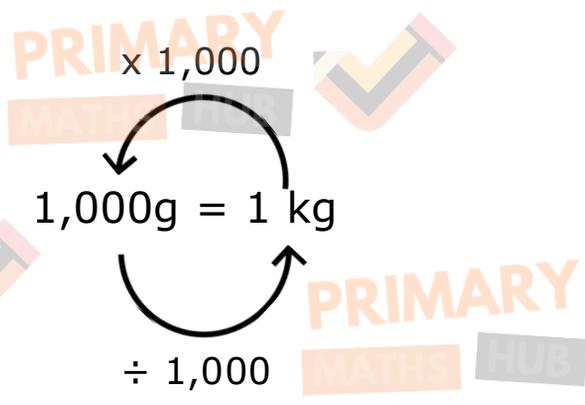
12 A party starts at 17:15 and ends at 19:45. How long does it last?

_____ hours _____ minutes

40- Metric measure- mass

1) To convert grams to kilograms, divide the amount by 1,000

2) To convert kilograms to grams, multiply the amount by 1,000



1 3,600 g = _____ kg

2 2.45 kg = _____ g

3 0.6 kg = _____ g

4 2,040 g = _____ kg

43- Order of operations

- B** Brackets ()
- O** Order ²³
- D** Division ÷
- M** Multiplication x
- A** Addition +
- S** Subtraction -

Complete the operations in order using BODMAS.

- 1) Complete any brackets
- 2) Complete any square or cube numbers
- 3) Complete any division or multiplication (left to right)
- 4) Complete any addition or subtraction (left to right)

$$4 \times 2 + 3 \times 3$$

$$4 \times 2 + 3 \times 3$$

$$8 + 9 = 17$$

1	6 + 4 × 3 =									

2	(8 + 2) × 5 =									

3	20 - 12 ÷ 3 =									

4	7 × (9 - 5) =									

44- 10, 100 and 1,000 more and less

M	HTh	TTh	Th	H	T	O
4	5	2	7	8	6	3

- 1) Identify the correct place value column
- 2) To find 10, 100 or 1,000 less, subtract from the number.
- 3) To find 10, 100 or 1,000 more, add to the number
- 4) Complete the calculation

1 10 more than 4,385 =

2 1000 more than 2,915 =

3 10 less than 2,504 =

4 100 more than 3,248 =

45- Multiply three numbers

$$5 \times 7 \times 2$$

1) Multiply two of the numbers together. This doesn't have to be done in order, so choose an easy two numbers to multiply together

2) Multiply the answer by the third number

$$5 \times 2 = 10$$

$$10 \times 7 = 70$$

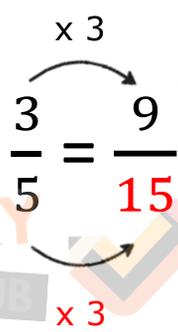
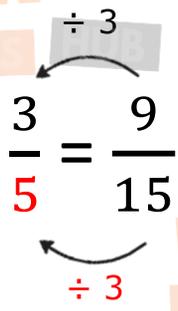
1	$3 \times 4 \times 2 =$									

2	$5 \times 2 \times 6 =$									

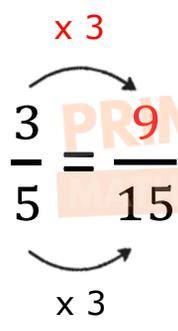
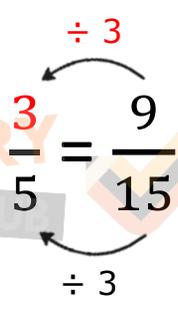
3	$7 \times 3 \times 4 =$									

4	$6 \times 2 \times 8 =$									

46- Equivalent fractions



1) To change a fraction to an equivalent fraction, the same multiplication or division must be done to both the numerator and denominator



1 $\frac{18}{24} = \frac{\quad}{\quad}$

2 $\frac{2}{\quad} = \frac{8}{12}$

3 $\frac{9}{12} = \frac{3}{\quad}$

4 $\frac{\quad}{5} = \frac{16}{20}$

47- Compare and order numbers

greater than $>$ less than $<$ equal to $=$

ascending = smallest to biggest
descending = biggest to smallest

Write these decimals in ascending order:

0.4 0.324 0.05

O	t	h	th
0	4	0	0
0	3	2	5
0	0	5	0

Ascending order:
 0.05, 0.325, 0.4

- 1) Write the numbers in their placeholder columns
- 2) Add placeholders
- 3) Compare from the furthest column to the left

1 Write these decimals in order from smallest to biggest:

0.6, 0.25, 0.625, 0.2, 0.75

--	--	--	--	--

smallest

biggest

2 Write these decimals in ascending order:

1.2, 0.9, 1.05, 1.25, 0.95

--	--	--	--	--

smallest

biggest

3 Write these decimals in ascending order:

2.5, 2.05, 2.75, 2.1, 2.25

--	--	--	--	--

smallest

biggest

4 Write these decimals in order from smallest to biggest:

0.45, 0.4, 0.425, 0.5, 0.48

--	--	--	--	--

smallest

biggest

47- Compare and order numbers

5 Write these decimals in order from smallest to biggest:

3.2, 3.05, 3.125, 3.075, 3.01

--	--	--	--	--

smallest

biggest

6 Write these decimals in ascending order:

0.9, 0.85, 0.875, 0.95, 0.8

--	--	--	--	--

smallest

biggest

7 Write these decimals in ascending order:

4.5, 4.25, 4.125, 4.75, 4.6

--	--	--	--	--

smallest

biggest

8 Write these decimals in order from smallest to biggest:

1.005, 1.05, 1.5, 1.25, 1.075

--	--	--	--	--

smallest

biggest

9 Circle the decimals that are greater than 0.45

0.3 0.45 0.5 0.75 0.42 0.6

10 Circle the decimals that are greater than 1.25

1.1 1.25 1.3 1.05 1.5 1.2

11 Circle the decimals that are greater than 2.075

2.01 2.075 2.1 2.25 2.05 2.5

12 Circle the decimals that are greater than 0.625

0.5 0.625 0.7 0.8 0.6 0.45

48- Compare and order fractions

greater than $>$ less than $<$ equal to $=$

ascending = smallest to biggest
descending = biggest to smallest

Write these fractions in ascending order:

$$\frac{3}{4} \quad \frac{5}{8} \quad \frac{2}{3}$$

1) Find a common denominator and write the equivalent fractions

$$\frac{18}{24} \quad \frac{15}{24} \quad \frac{16}{24}$$

2) Rewrite in their original form

$\frac{5}{8}$	$\frac{2}{3}$	$\frac{3}{4}$
---------------	---------------	---------------

smallest

biggest

1 Write these fractions in order from smallest to biggest:

$$\frac{1}{4} \quad \frac{2}{3} \quad \frac{3}{8} \quad \frac{5}{6} \quad \frac{1}{2}$$

--	--	--	--	--

smallest

biggest

2 Write these fractions in ascending order:

$$\frac{2}{5} \quad \frac{3}{10} \quad \frac{1}{2} \quad \frac{4}{5} \quad \frac{3}{4}$$

--	--	--	--	--

smallest

biggest

3 Write these fractions in ascending order:

$$\frac{1}{6} \quad \frac{5}{12} \quad \frac{3}{8} \quad \frac{2}{3} \quad \frac{1}{3}$$

--	--	--	--	--

smallest

biggest

4 Write these fractions in order from smallest to biggest:

$$\frac{1}{10} \quad \frac{3}{5} \quad \frac{2}{3} \quad \frac{7}{20} \quad \frac{9}{10}$$

--	--	--	--	--

smallest

biggest

48- Compare and order fractions

5 Write these fractions in order from smallest to biggest:

$$\frac{2}{9} \quad \frac{1}{3} \quad \frac{4}{9} \quad \frac{5}{6} \quad \frac{7}{18}$$

--	--	--	--	--

smallest

biggest

6 Write these fractions in ascending order:

$$\frac{3}{4} \quad \frac{1}{8} \quad \frac{5}{16} \quad \frac{7}{8} \quad \frac{1}{2}$$

--	--	--	--	--

smallest

biggest

7 Write these fractions in ascending order:

$$\frac{2}{5} \quad \frac{1}{2} \quad \frac{3}{10} \quad \frac{4}{15} \quad \frac{7}{20}$$

--	--	--	--	--

smallest

biggest

8 Write these fractions in order from smallest to biggest:

$$\frac{1}{9} \quad \frac{5}{18} \quad \frac{3}{4} \quad \frac{2}{3} \quad \frac{7}{36}$$

--	--	--	--	--

smallest

biggest

9 Circle the fractions that are greater than $\frac{2}{5}$

$$\frac{1}{4} \quad \frac{3}{5} \quad \frac{1}{2} \quad \frac{4}{9}$$

10 Circle the fractions that are greater than $\frac{3}{8}$

$$\frac{1}{6} \quad \frac{1}{2} \quad \frac{5}{12} \quad \frac{2}{9}$$

11 Circle the fractions that are greater than $\frac{4}{9}$

$$\frac{1}{5} \quad \frac{5}{9} \quad \frac{2}{3} \quad \frac{3}{10}$$

12 Circle the fractions that are greater than $\frac{5}{12}$

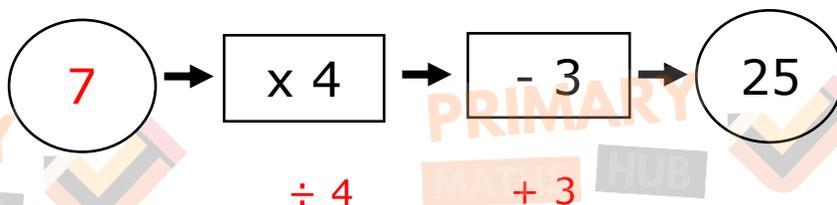
$$\frac{1}{6} \quad \frac{3}{8} \quad \frac{2}{5} \quad \frac{4}{11}$$

49- Find the starting number

Mai thinks of a number. She multiplies it by 4. Then she subtracts 3. Her answer is 25. What number was Mai thinking of? 7

1) Write out the steps in order

2) Reverse the steps



3) Check your answer by following the steps in order

1 Caleb thinks of a number. He divides it by 3. The answer is 54. What number was Caleb thinking of?

2 Hannah thinks of a number. She multiplies it by 2. Then she adds 9. Then she divides it by 3. Her answer is 7. What number was Hannah thinking of?

3 Liam thinks of a number. He subtracts 14 from it. The answer is 29. What number was Liam thinking of?

4 Sophie thinks of a number. She multiplies it by 5. Then she subtracts 7. Her answer is 48. What number was Sophie thinking of?

49- Find the starting number

5 Noah thinks of a number. He divides it by 4. The answer is 19. What number was Noah thinking of?

6 Ava thinks of a number. She adds 12. Then she divides it by 6. Her answer is 7. What number was Ava thinking of?

7 Oliver thinks of a number. He multiplies it by 3. The answer is 81. What number was Oliver thinking of?

8 Mia thinks of a number. She subtracts 9. Then she multiplies it by 2. Her answer is 50. What number was Mia thinking of?

9 Ethan thinks of a number. He divides it by 7. Then he adds 6. His answer is 20. What number was Ethan thinking of?

10 Grace thinks of a number. She adds 25. The answer is 63. What number was Grace thinking of?

11 Lucas thinks of a number. He multiplies it by 4. Then he divides it by 2. His answer is 30. What number was Lucas thinking of?

12 Ella thinks of a number. She subtracts 5. Then she divides it by 3. Her answer is 11. What number was Ella thinking of?

50- Place value- underlined digit

M	HTh	TTh	Th	H	T	O
4	5	2	7	8	6	3

4,527,863

What is the value of the underlined digit?

- 1) Write the place value headings.
- 2) Select the digit in the correct place
- 3) Include the placeholders

20,000

4,527,863

Which digit is in the **hundred-thousands** place?

- 1) Write the place value headings.
- 2) Select the digit in the correct place

5

1

4,382,719

a) Which digit is in the ten-thousands place? _____

b) What is the value of the digit 8? _____

2

7,540,286

a) Which digit is in the hundreds place? _____

b) What is the value of the digit 7? _____

3

9,214,653

a) Which digit is in the hundred-thousands place? _____

b) What is the value of the digit 5? _____

4

3,806,491

a) Which digit is in the thousands place? _____

b) What is the value of the digit 3? _____

50- Place value- underlined digit

5 6,129,874

a) Which digit is in the tens place?

b) What is the value of the digit 9?

6 8,703,562

a) Which digit is in the millions place? _____

b) What is the value of the digit 6? _____

7 5,491,320

a) Which digit is in the hundred-thousands place?

b) What is the value of the digit 3?

8 2,658,947

a) Which digit is in the hundreds place? _____

b) What is the value of the digit 2? _____

9 1,974,530

a) Which digit is in the ten-thousands place? _____

b) What is the value of the digit 4?

10 4,867,219

a) Which digit is in the thousands place? _____

b) What is the value of the digit 8? _____

11 7,315,864

a) Which digit is in the tens place?

b) What is the value of the digit 1?

12 9,042,671

a) Which digit is in the hundreds place? _____

b) What is the value of the digit 2? _____

51- Place value- missing value

HTh	TTh	Th	H	T	O
5	2	7	8	6	3

$$527,863 = 500,000 + \underline{\hspace{2cm}} + 7,000 + 800 + 60 + 3$$

- 1) Add in the place value headings
- 2) Look at which digits have not been used
- 3) Work out the place value of the digit

$$527,863 = 500,000 + \underline{20,000} + 7,000 + 800 + 60 + 3$$

1

$$48,302 = 40,000 + \underline{\hspace{2cm}} + 300 + 2$$

2

$$600,000 + 40,000 + 7,000 + \underline{\hspace{2cm}} + 2 = 647,502$$

3

$$93,418 = \underline{\hspace{2cm}} + 3,000 + 400 + 10 + 8$$

4

$$300,000 + 40,000 + 5,000 + 600 + \underline{\hspace{2cm}} + 4 = 345,654$$

51- Place value- missing value

5

$$712,905 = 700,000 + \underline{\hspace{2cm}}$$
$$+ 2,000 + 900 + 5$$

6

$$\underline{\hspace{2cm}} + 20,000 + 3,000 +$$
$$80 + 6 = 823,086$$

7

$$54,709 = 50,000 + 4,000 +$$
$$\underline{\hspace{2cm}} + 9$$

8

$$900,000 + \underline{\hspace{2cm}} + 400 +$$
$$3 = 905,403$$

9

$$261,834 = 200,000 + \underline{\hspace{2cm}}$$
$$+ 1,000 + 800 + 30$$

10

$$\underline{\hspace{2cm}} + 50,000 + 4,000 +$$
$$20 + 9 = 754,029$$

11

$$406,512 = 400,000 + \underline{\hspace{2cm}}$$
$$+ 500 + 10 + 2$$

12

$$\underline{\hspace{2cm}} + 30,000 + 400 + 7$$
$$= 530,407$$

52- Rounding

M	HTh	TTh	Th	H	T	O
4	5	2	7	8	6	3

Round 4,527,863 to the nearest 1,000.

4,527,863

4,528,000

- 1) Identify the place value column being rounded to.
- 2) Look at the digit to the right and underline it.
- 3) If the underlined digit is between 0-4, the circled stays the same.
- 4) If the underlined digit is between 5-9, the circled digit increases by 1.
- 5) Replace digits to the right with zeroes.

1 Number: 5,694,494

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

2 Number: 3,218,765

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

3 Number: 8,406,129

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

4 Number: 2,975,381

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

52- Rounding

5 Number: 6,143,257

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

6 Number: 4,802,694

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

7 Number: 7,159,832

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

8 Number: 1,306,478

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

9 Number: 9,274,165

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

10 Number: 2,587,349

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

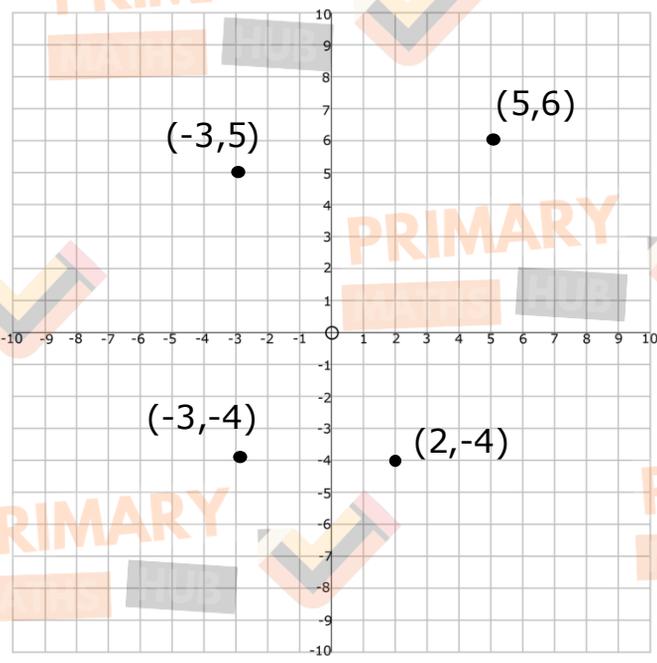
11 Number: 6,920,581

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

12 Number: 3,405,726

- Nearest 10: _____
- Nearest 100: _____
- Nearest 1,000: _____
- Nearest 10,000: _____
- Nearest 100,000: _____

53- Coordinates



Read the x-axis (horizontal) coordinate first and then the y-axis (vertical) coordinate.

1

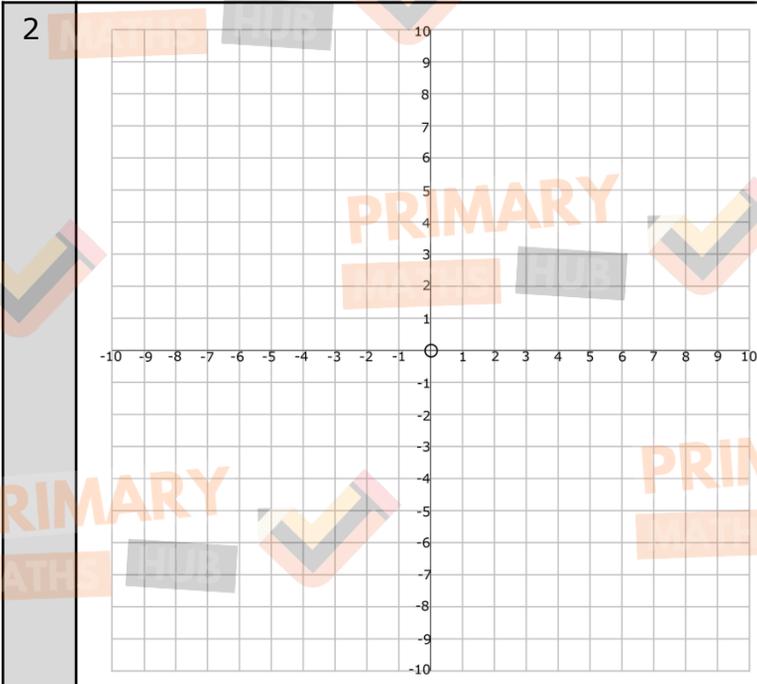
A coordinate grid with x and y axes ranging from -10 to 10. Six points are plotted and labeled with letters:

- Point A: $(8, -8)$
- Point B: $(9, 1)$
- Point C: $(-8, -5)$
- Point D: $(-3, 8)$
- Point E: $(-9, 6)$
- Point F: $(1, -2)$

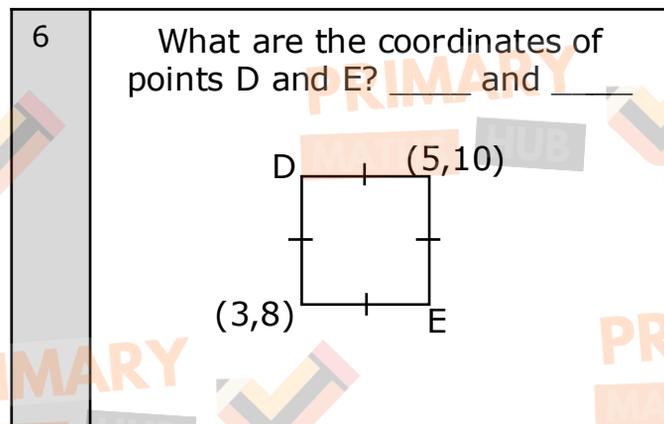
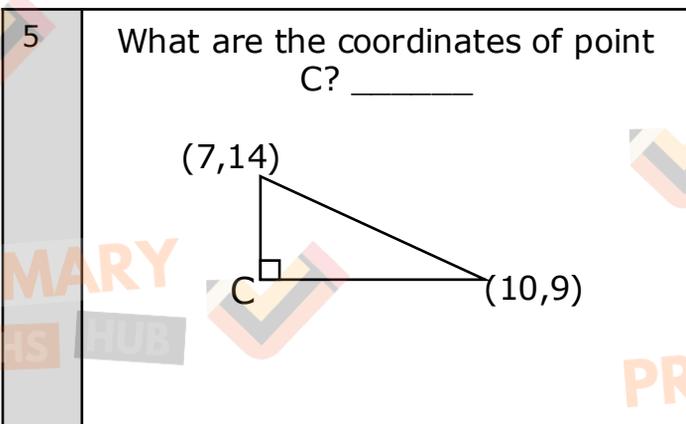
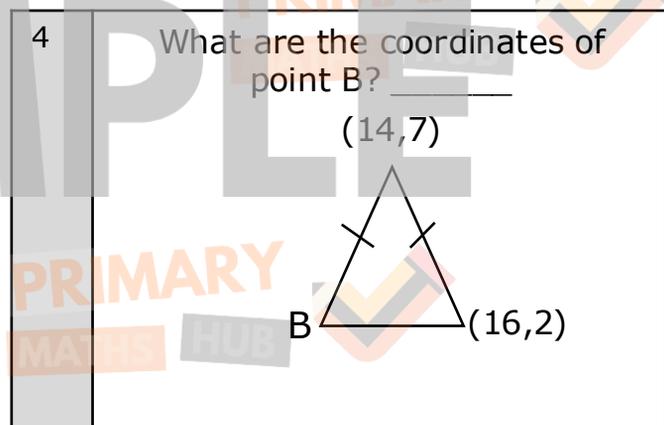
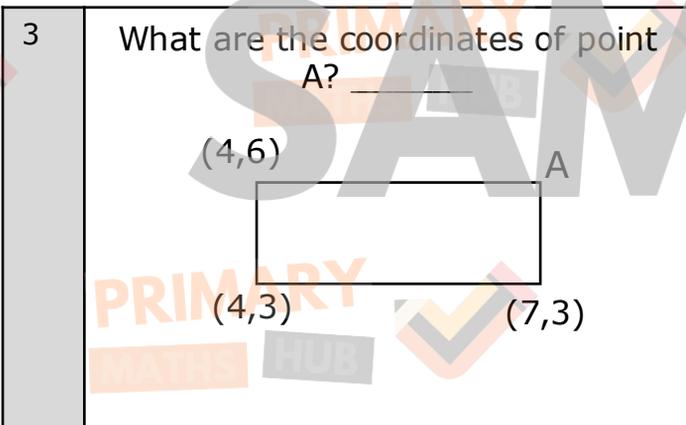
Write the coordinates for each letter

A	
B	
C	
D	
E	
F	

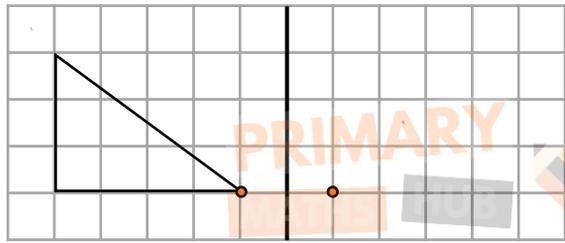
53- Coordinates



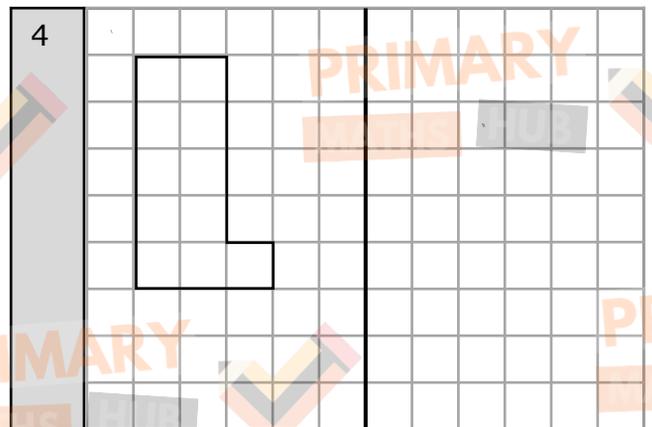
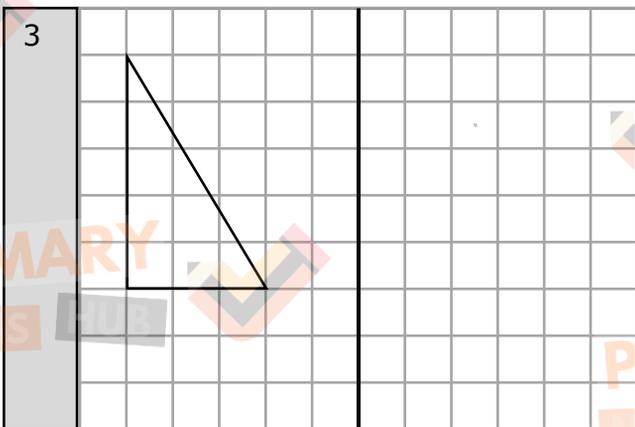
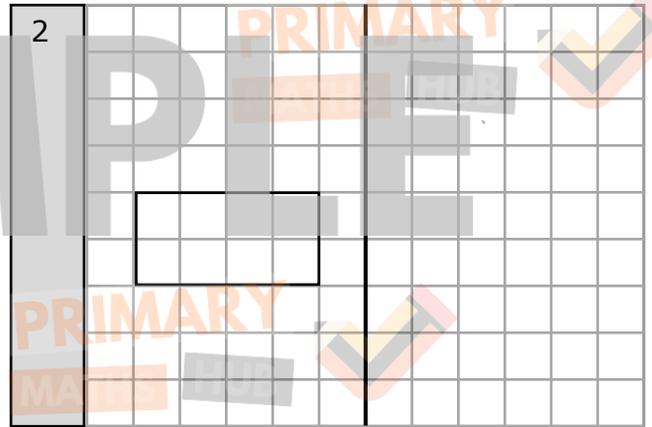
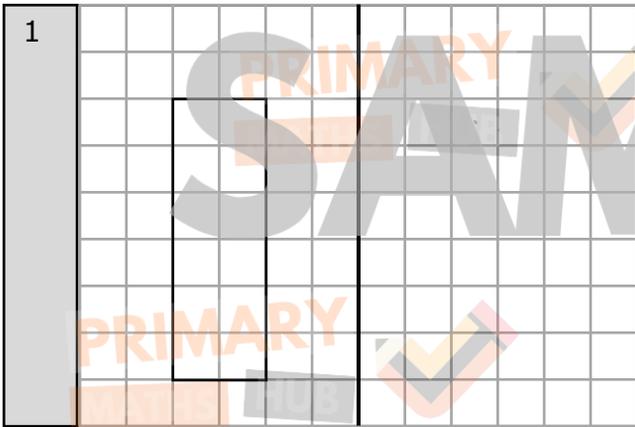
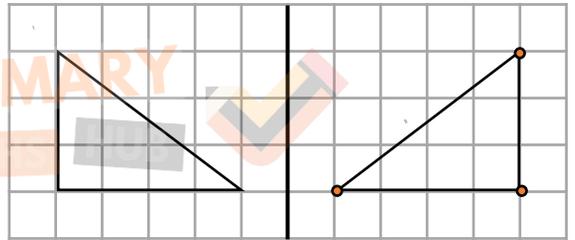
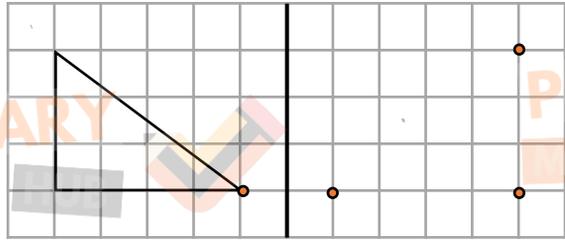
Plot the points on the grid	
A	(3,2)
B	(9,-3)
C	(-5,-3)
D	(-3,5)
E	(-7,8)
F	(-3,-9)



54- Reflecting



- 1) Choose a corner and count the units to the mirror line.
- 2) Count the same number of units out from the mirror line.
- 3) Draw a dot in the new location.
- 4) Repeat with the rest of the corners.
- 5) Re-draw the shape **using a ruler.**



54- Reflecting

5

A grid with a vertical line of symmetry. A triangle is drawn on the left side of the line. The triangle has a base of 2 units and a height of 2 units. The top vertex is at the top-left corner of the 2x2 square area to the left of the line.

6

A grid with a vertical line of symmetry. A diamond (square rotated 45 degrees) is drawn on the left side of the line. The diamond's vertices are at the midpoints of the four sides of a 2x2 square area to the left of the line.

7

A grid with a vertical line of symmetry. A trapezoid is drawn on the left side of the line. The bottom base is 2 units long, the top base is 1 unit long, and the height is 2 units.

8

A grid with a vertical line of symmetry. An L-shaped polygon is drawn on the left side of the line. It consists of a 2x2 square with the top-right corner missing.

9

A grid with a vertical line of symmetry. A cross-like shape is drawn on the left side of the line. It consists of a 2x2 square with a 1x1 square attached to the bottom side.

10

A grid with a vertical line of symmetry. A trapezoid is drawn on the left side of the line. The bottom base is 2 units long, the top base is 1 unit long, and the height is 2 units.

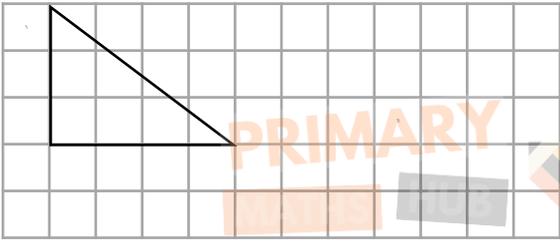
11

A grid with a vertical line of symmetry. A pentagon is drawn on the left side of the line. It has a horizontal top base of 2 units, a vertical left side of 2 units, and a right side that is a diagonal line from the top-right corner to the midpoint of the bottom base.

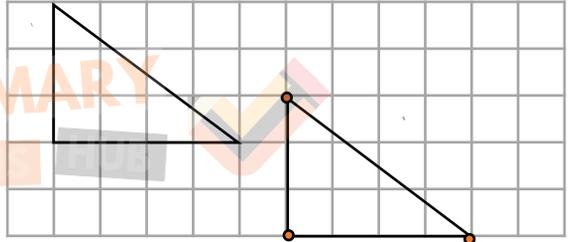
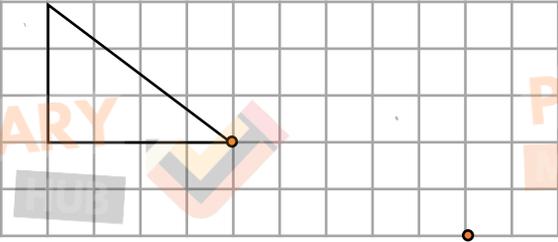
12

A grid with a vertical line of symmetry. A triangle is drawn on the left side of the line. The base is 2 units long and the height is 2 units. The top vertex is at the top-right corner of the 2x2 square area to the left of the line.

55- Translating

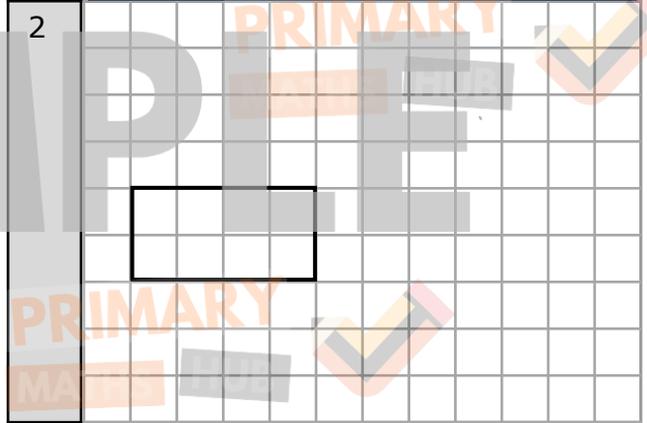
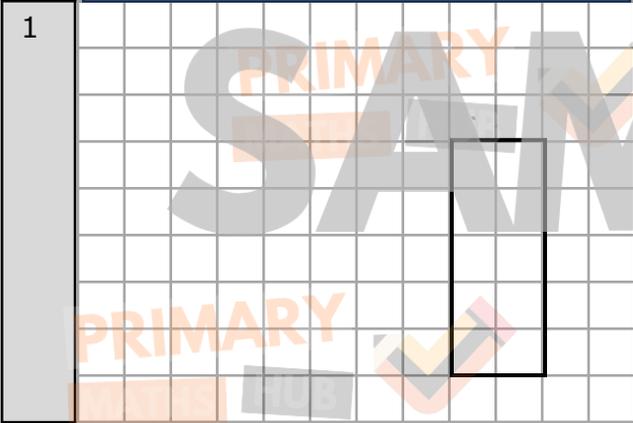


- 1) Choose a corner and count the units left or right then up or down.
- 2) Draw a dot in the new location.
- 3) Repeat with the rest of the corners.
- 4) Re-draw the shape **using a ruler**.



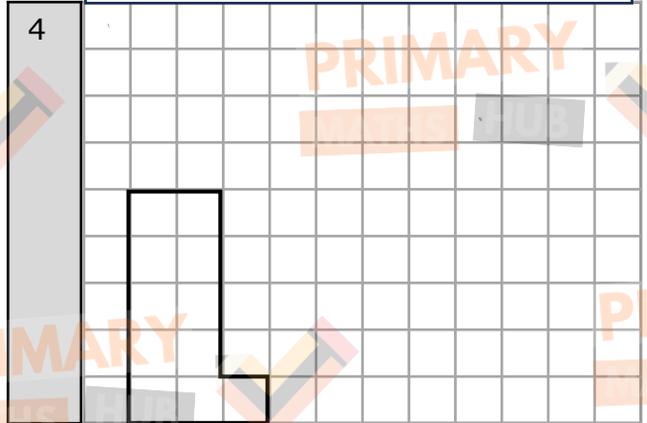
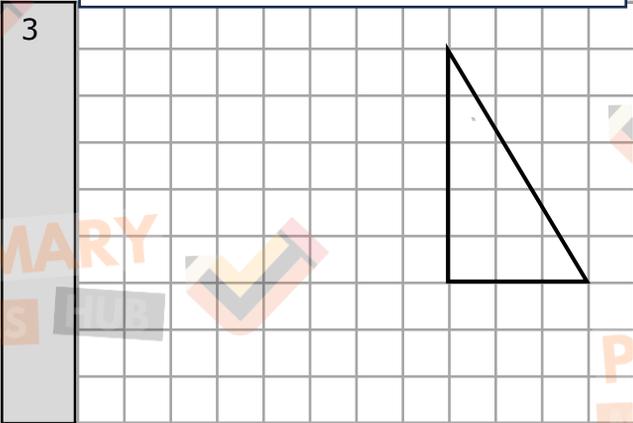
Translate 3 units left and 2 units up

Translate 6 units right and 3 units up



Translate 4 units left and 1 unit down

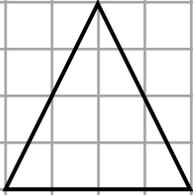
Translate 3 units right and 3 units up



55- Translating

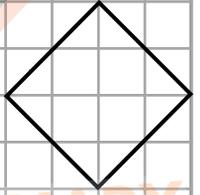
5

Translate 5 units right and 1 units down



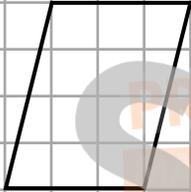
6

Translate 6 units left and 2 units down



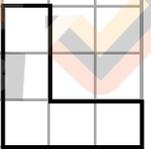
7

Translate 4 units right and 2 units up



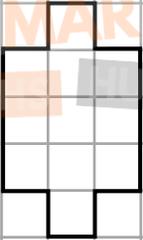
8

Translate 5 units left and 3 units up



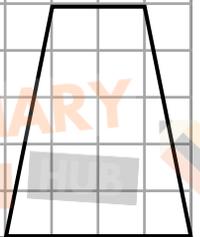
9

Translate 6 units right and 1 units down



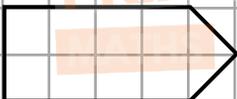
10

Translate 6 units left and 1 unit up



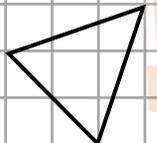
11

Translate 5 units right and 4 units up



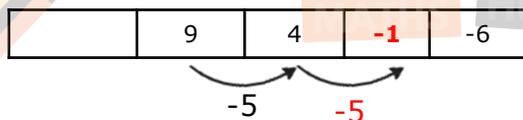
12

Translate 7 units left and 4 units down



56- Negative number sequences

The numbers in this sequence decrease by the same amount each time. Write the missing numbers



- 1) Identify whether the numbers will be increasing or decreasing from left to right.
- 2) Use two adjacent numbers to work out the difference.
- 3) **Work left to right, completing the operations.**
- 4) **To find the missing number at the start of the sequence. Reverse the operation**
- 5) Check that the sequence works

1 The numbers in this sequence increase by the same amount each time. Write the missing numbers



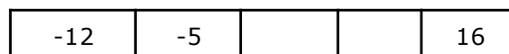
2 The numbers in this sequence decrease by the same amount each time. Write the missing numbers



3 The numbers in this sequence increase by the same amount each time. Write the missing numbers



4 The numbers in this sequence increase by the same amount each time. Write the missing numbers



56- Negative number sequences

5 The numbers in this sequence decrease by the same amount each time. Write the missing numbers

13		7	4	
----	--	---	---	--

6 The numbers in this sequence increase by the same amount each time. Write the missing numbers

-27	-17	-7		
-----	-----	----	--	--

7 The numbers in this sequence decrease by the same amount each time. Write the missing numbers

19	11			-13
----	----	--	--	-----

8 The numbers in this sequence decrease by the same amount each time. Write the missing numbers

		1	-1	3
--	--	---	----	---

9 The numbers in this sequence increase by the same amount each time. Write the missing numbers

-24	-15	-6		
-----	-----	----	--	--

10 The numbers in this sequence decrease by the same amount each time. Write the missing numbers

36		14	3	
----	--	----	---	--

11 The numbers in this sequence increase by the same amount each time. Write the missing numbers

-11	-6	-1		
-----	----	----	--	--

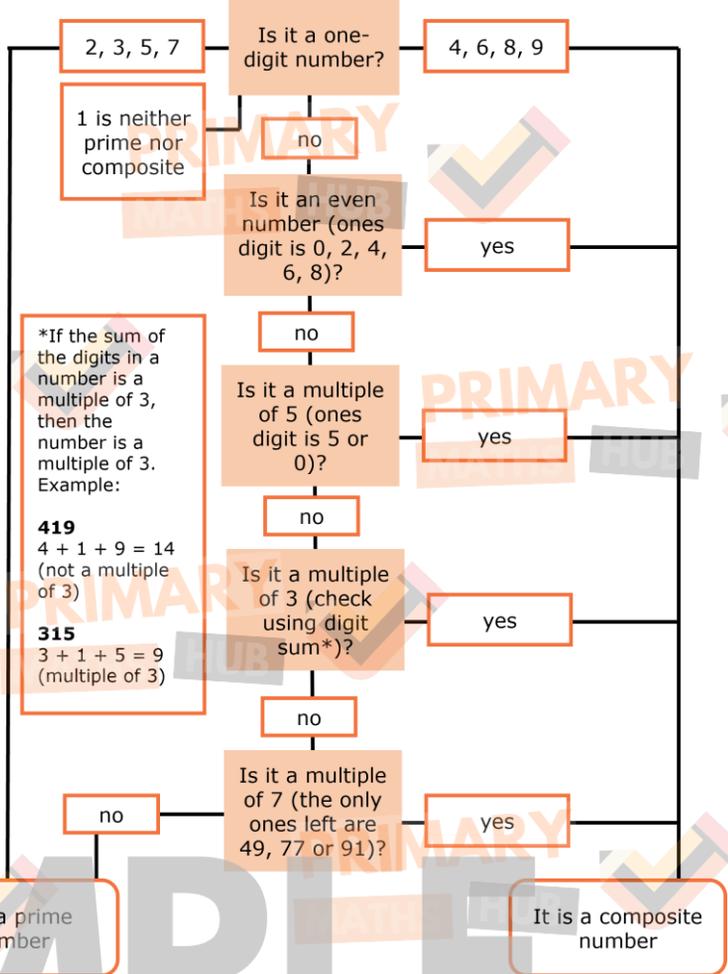
12 The numbers in this sequence decrease by the same amount each time. Write the missing numbers

17			-1	-7
----	--	--	----	----

57- Prime numbers

Prime numbers are numbers that have exactly two factors: themselves and 1.

Use this flow chart to see whether any number up to 100 is prime.



1 Circle the prime number:
 8 12 19 20

2 Circle the prime number:
 21 43 27 45

3 Circle the prime number:
 50 72 90 89

4 Circle the prime number:
 47 14 28 25

57- Prime numbers

5 Which two different prime numbers add to make 12?

_____ and _____

6 Which two different prime numbers add to make 16?

_____ and _____

_____ and _____

7 Which two different prime numbers add to make 18?

_____ and _____

_____ and _____

8 Which two different prime numbers add to make 10?

_____ and _____

9 Circle two prime numbers with a difference of 2.

69 71 73 19 21 16

10 Circle two prime numbers with a difference of 2.

1 5 9 7 11 2

11 Circle two prime numbers with a difference of 3.

1 3 2 10 7 5 13

12 Circle two prime numbers with a difference of 4.

43 41 44 47 49 53

58- Equality statements

$$300 \times 2 = \underline{\quad\quad\quad} + 50$$

600

$$300 \times 2 = \underline{550} + 50$$

1) Work out what the calculation on one side of the equality symbol is.

$$300 \times 2 = 600$$

2) Work out what needs to be included in the calculation on the other side of the equality symbol to make both sides equal.

$$600 - 50 = 550$$

1 $200 + 40 = \underline{\quad\quad\quad} \times 40$

2 $300 - \underline{\quad\quad\quad} = 7 \times 30$

3 $\underline{\quad\quad\quad} \div 2 = 8 \times 25$

4 $600 - \underline{\quad\quad\quad} = 9 \times 40$

58- Equality statements

5 $150 + \underline{\hspace{2cm}} = 5 \times 60$

6 $560 \div 2 = 40 \times \underline{\hspace{2cm}}$

7 $540 \div 2 = \underline{\hspace{2cm}} \times 90$

8 $180 \div \underline{\hspace{2cm}} = 2 \times 45$

9 $420 \div 2 = \underline{\hspace{2cm}} \times 35$

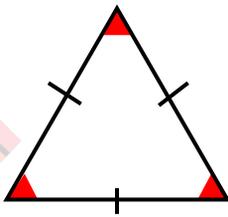
10 $140 + \underline{\hspace{2cm}} = 7 \times 40$

11 $480 \div 2 = \underline{\hspace{2cm}} \times 30$

12 $300 - \underline{\hspace{2cm}} = 9 \times 25$

59- Angles in triangles

equilateral triangles
all angles are equal



$180^\circ \div 3 = 60^\circ$

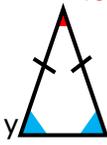
isosceles triangles
two angles are equal



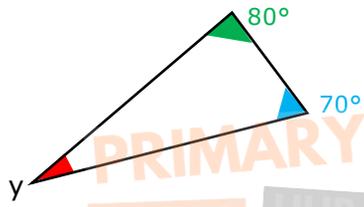
If one of the two identical angles is marked, add them together and subtract from 180°.
 $70^\circ + 70^\circ = 140^\circ$
 $180^\circ - 140^\circ = 40^\circ$
 $y = 40^\circ$



If the different angles is marked, subtract it from 180° and then divide the result by 2.
 $180^\circ - 40^\circ = 140$
 $140^\circ \div 2 = 70^\circ$
 $y = 70^\circ$

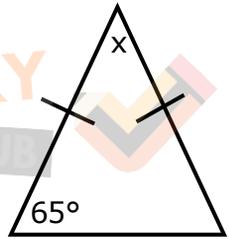


scalene triangles
no angles are equal



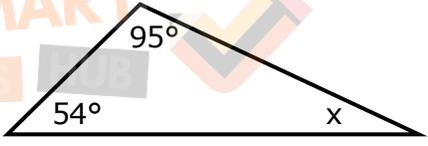
Add together the two known angles and subtract the total from 180°.
 $80^\circ + 70^\circ = 150^\circ$
 $180^\circ - 150^\circ = 30^\circ$
 $y = 30^\circ$

1



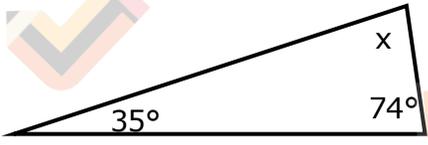
$x = \underline{\hspace{2cm}}$

2



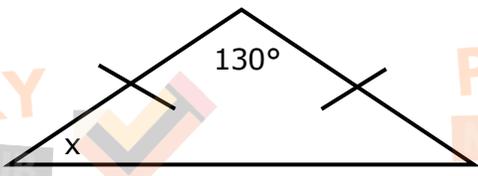
$x = \underline{\hspace{2cm}}$

3



$x = \underline{\hspace{2cm}}$

4



$x = \underline{\hspace{2cm}}$

Not drawn to scale

59- Angles in triangles

5

$x =$ _____

6

$x =$ _____

7

$x =$ _____

8

$x =$ _____

9

$x =$ _____

10

$x =$ _____

11

$x =$ _____

12

$x =$ _____

Not drawn to scale

60- Angles in quadrilaterals

rectangles
all angles are equal

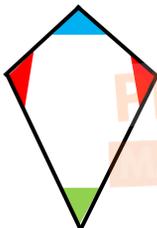


parallelograms
two pairs of angles are equal

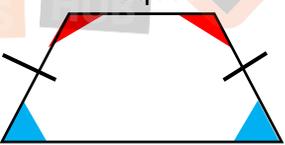


If one angle is known, double it, subtract from 360° and then halve the result.

kite
two opposite sides are equal



isosceles trapezium
two pairs of angles are equal



If one angle is known, double it, subtract from 360° and then halve the result.

other quadrilaterals
No sides are equal
Add together the known angles and subtract from 360°



1



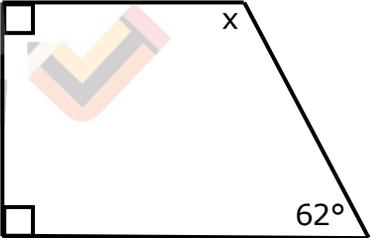
$x = \underline{\hspace{2cm}}$

2



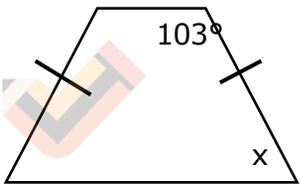
$x = \underline{\hspace{2cm}}$

3



$x = \underline{\hspace{2cm}}$

4



$x = \underline{\hspace{2cm}}$

Not drawn to scale

60- Angles in quadrilaterals

5

$x =$ _____

6

$x =$ _____

7

$x =$ _____

8

$x =$ _____

9

$x =$ _____

10

$x =$ _____

11

$x =$ _____

12

$x =$ _____

Not drawn to scale

1- Column addition		
1)	$54,382 + 946 =$	55,328
2)	$80,315 + 7,492 =$	87,807
3)	$462,901 + 8,314 =$	471,215
4)	$129,450 + 37,812 =$	167,262
5)	$508,236 + 4,719 =$	512,955
6)	$75,004 + 6,381 =$	81,385
7)	$643,219 + 52,807 =$	696,026
8)	$91,503 + 8,267 =$	99,770
9)	$387,620 + 5,413 =$	393,033
10)	$504,118 + 39,205 =$	543,323
11)	$268,407 + 7,951 =$	276,358
12)	$712,095 + 84,306 =$	796,401

2- Column subtraction		
1)	$84,512 - 3,406 =$	81,106
2)	$705,918 - 42,507 =$	663,411
3)	$63,407 - 8,291 =$	55,116
4)	$512,039 - 7,854 =$	504,185
5)	$94,650 - 3,218 =$	91,432
6)	$803,721 - 65,104 =$	738,617
7)	$75,903 - 4,712 =$	71,191
8)	$690,458 - 53,209 =$	637,249
9)	$58,204 - 9,315 =$	48,889
10)	$401,876 - 28,507 =$	373,369
11)	$96,530 - 7,406 =$	89,124
12)	$578,902 - 34,815 =$	544,087

3- Missing numbers		
1)	$248 + \mathbf{67} = 315$	
2)	$542 = 389 + \mathbf{153}$	
3)	$1,204 - \mathbf{318} = 886$	
4)	$729 = \mathbf{1,002} - 273$	
5)	$\mathbf{456} + 128 = 584$	
6)	$1,315 = 987 + \mathbf{328}$	
7)	$\mathbf{2,304} - 415 = 1,889$	
8)	$603 = 812 - \mathbf{209}$	
9)	$3,507 + \mathbf{96} = 3,603$	
10)	$1,042 = 1,450 - \mathbf{408}$	
11)	$\mathbf{782} + 349 = 1,131$	
12)	$2,218 = 1,904 + \mathbf{314}$	

4- Multiply using known facts		
1)	$300 \times 8 =$	2,400
2)	$7 \times 400 =$	2,800
3)	$9 \times 2,000 =$	18,000
4)	$80 \times 30 =$	2,400
5)	$600 \times 3 =$	1,800
6)	$7,000 \times 5 =$	35,000
7)	$90 \times 5 =$	450
8)	$6 \times 3,000 =$	18,000
9)	$90 \times 40 =$	3,600
10)	$3,000 \times 5 =$	15,000
11)	$8 \times 9,000 =$	72,000
12)	$800 \times 7 =$	5,600

5- Divide using known facts		
1)	$560 \div 7 =$	80
2)	$4,500 \div 9 =$	500
3)	$320 \div 4 =$	80
4)	$8,100 \div 9 =$	900
5)	$720 \div 6 =$	120
6)	$24,000 \div 2 =$	12,000
7)	$630 \div 7 =$	90
8)	$4,800 \div 8 =$	600
9)	$360 \div 12 =$	30
10)	$2,800 \div 7 =$	400
11)	$990 \div 11 =$	90
12)	$840 \div 7 =$	120

6- Multiply by 10, 100 and 1,000		
1)	$5.6 \times 10 =$	56
2)	$0.605 \times 100 =$	60.5
3)	$1,000 \times 6.3 =$	6,300
4)	$0.07 \times 100 =$	7
5)	$100 \times 15.6 =$	1,560
6)	$10 \times 5.03 =$	50.3
7)	$1.53 \times 100 =$	153
8)	$56.09 \times 10 =$	560.9
9)	$1,000 \times 2.09 =$	2,090
10)	$0.45 \times 1,000 =$	450
11)	$60.94 \times 10 =$	609.4
12)	$100 \times 5.503 =$	550.3

7- Divide by 10, 100 and 1,000		
1)	$560 \div 100 =$	5.6
2)	$5.9 \div 10 =$	0.59
3)	$6,400 \div 1,000 =$	6.4
4)	$2,004 \div 100 =$	20.04
5)	$9,100 \div 1,000 =$	9.1
6)	$7.8 \div 100 =$	0.078
7)	$15.3 \div 100 =$	0.153
8)	$7.2 \div 10 =$	0.72
9)	$10.4 \div 100 =$	0.104
10)	$340 \div 1,000 =$	0.34
11)	$452 \div 100 =$	4.52
12)	$512 \div 10 =$	51.2

8- Short multiplication		
1)	$4,382 \times 6 =$	26,292
2)	$7 \times 3,105 =$	21,735
3)	$5,614 \times 8 =$	44,912
4)	$9 \times 4,207 =$	37,863
5)	$3,986 \times 4 =$	15,944
6)	$8 \times 2,731 =$	21,848
7)	$6,405 \times 3 =$	19,215
8)	$5 \times 4,129 =$	20,645
9)	$7,218 \times 9 =$	64,962
10)	$6 \times 3,804 =$	22,824
11)	$4,507 \times 7 =$	31,549
12)	$8 \times 6,193 =$	49,544

Answers

9- Short multiplication with decimals		
1)	$7.41 \times 6 =$	44.46
2)	$8 \times 4.276 =$	34.208
3)	$5.83 \times 7 =$	40.81
4)	$3 \times 68.47 =$	205.41
5)	$492.6 \times 4 =$	1,970.4
6)	$9 \times 7.52 =$	67.68
7)	$63.58 \times 5 =$	317.9
8)	$4 \times 5.814 =$	23.256
9)	$8.64 \times 6 =$	51.84
10)	$3 \times 547.2 =$	1,641.6
11)	$72.43 \times 8 =$	579.44
12)	$9 \times 4.137 =$	37.233

10- Short division		
1)	$4,824 \div 6 =$	804
2)	$7,392 \div 8 =$	924
3)	$6,468 \div 3 =$	2,156
4)	$8,316 \div 4 =$	2,079
5)	$9,135 \div 5 =$	1,827
6)	$4,536 \div 7 =$	648
7)	$6,888 \div 9 =$	765
8)	$5,824 \div 8 =$	728
9)	$7,254 \div 6 =$	1,209
10)	$8,064 \div 7 =$	1,152
11)	$9,702 \div 3 =$	3,234
12)	$4,968 \div 4 =$	1,242

11- Short division- decimal remainder		
1)	$427 \div 5 =$	85.4
2)	$638 \div 7 =$	91.14
3)	$713 \div 6 =$	118.83
4)	$854 \div 9 =$	94.89
5)	$467 \div 4 =$	116.75
6)	$935 \div 6 =$	155.83
7)	$814 \div 3 =$	271.33
8)	$679 \div 8 =$	84.88
9)	$953 \div 4 =$	238.25
10)	$721 \div 9 =$	80.11
11)	$584 \div 7 =$	83.43
12)	$763 \div 8 =$	95.38

12- Long multiplication		
1)	$6,453 \times 78 =$	503,334
2)	$5,973 \times 27 =$	161,271
3)	$6,342 \times 58 =$	367,836
4)	$246 \times 52 =$	12,792
5)	$574 \times 38 =$	21,812
6)	$4,636 \times 89 =$	412,604
7)	$64 \times 37 =$	2,368
8)	$752 \times 79 =$	59,408
9)	$268 \times 82 =$	21,976
10)	$4,986 \times 94 =$	468,684
11)	$567 \times 84 =$	47,628
12)	$68 \times 52 =$	3,536

13- Long division

1)	$4,368 \div 56 =$	78
2)	$7,452 \div 93 =$	80
3)	$6,804 \div 84 =$	81
4)	$9,152 \div 64 =$	143
5)	$5,544 \div 72 =$	77
6)	$8,316 \div 69 =$	120
7)	$4,860 \div 81 =$	60
8)	$7,392 \div 92 =$	80
9)	$6,174 \div 21 =$	294
10)	$9,504 \div 24 =$	396
11)	$5,670 \div 27 =$	210
12)	$8,064 \div 32 =$	252

15- Add to a mixed number

1)	$3\frac{3}{4} + \frac{1}{2} =$	$4\frac{1}{4}$
2)	$5\frac{5}{6} + \frac{1}{3} =$	$6\frac{1}{6}$
3)	$2\frac{4}{5} + \frac{3}{5} =$	$3\frac{2}{5}$
4)	$1\frac{7}{8} + \frac{1}{4} =$	$2\frac{1}{8}$
5)	$4\frac{2}{3} + \frac{1}{2} =$	$5\frac{1}{6}$
6)	$6\frac{5}{9} + \frac{5}{9} =$	$7\frac{1}{9}$
7)	$7\frac{2}{4} + \frac{2}{3} =$	$8\frac{5}{12}$
8)	$3\frac{7}{10} + \frac{3}{5} =$	$4\frac{3}{10}$
9)	$8\frac{5}{12} + \frac{1}{3} =$	$8\frac{9}{12}$
10)	$1\frac{6}{7} + \frac{3}{7} =$	$2\frac{2}{7}$
11)	$9\frac{4}{9} + \frac{7}{9} =$	$7\frac{2}{9}$
12)	$5\frac{11}{12} + \frac{2}{3} =$	$6\frac{7}{12}$

14- Add and subtract fractions

1)	$\frac{1}{3} + \frac{1}{6} =$	$\frac{3}{6}$ or $\frac{1}{2}$
2)	$\frac{5}{8} - \frac{1}{4} =$	$\frac{3}{8}$
3)	$\frac{2}{5} + \frac{1}{10} =$	$\frac{5}{10}$ or $\frac{1}{2}$
4)	$\frac{3}{4} - \frac{1}{6} =$	$\frac{7}{12}$
5)	$\frac{2}{9} + \frac{1}{3} =$	$\frac{5}{9}$
6)	$\frac{3}{7} + \frac{2}{5} =$	$\frac{29}{35}$
7)	$\frac{5}{12} - \frac{1}{6} =$	$\frac{3}{12}$ or $\frac{1}{4}$
8)	$\frac{4}{9} + \frac{1}{12} =$	$\frac{19}{36}$
9)	$\frac{7}{10} - \frac{1}{5} =$	$\frac{5}{10}$ or $\frac{1}{2}$
10)	$\frac{3}{8} + \frac{1}{2} =$	$\frac{11}{24}$
11)	$\frac{4}{11} - \frac{1}{22} =$	$\frac{7}{22}$
12)	$\frac{2}{3} + \frac{3}{8} =$	$\frac{25}{24}$ or $1\frac{1}{24}$

16- Add two mixed numbers

1)	$2\frac{1}{3} + 1\frac{2}{5} =$	$3\frac{11}{15}$
2)	$1\frac{4}{7} + 2\frac{1}{6} =$	$3\frac{31}{42}$
3)	$3\frac{2}{9} + 1\frac{3}{8} =$	$4\frac{43}{72}$
4)	$2\frac{5}{12} + 1\frac{1}{5} =$	$3\frac{37}{60}$
5)	$1\frac{3}{10} + 3\frac{1}{4} =$	$4\frac{11}{20}$
6)	$2\frac{2}{7} + 1\frac{5}{9} =$	$3\frac{53}{63}$
7)	$3\frac{1}{8} + 2\frac{3}{10} =$	$5\frac{17}{40}$
8)	$1\frac{5}{6} + 3\frac{2}{7} =$	$5\frac{5}{42}$
9)	$2\frac{4}{11} + 1\frac{3}{8} =$	$3\frac{65}{88}$
10)	$3\frac{1}{5} + 2\frac{2}{9} =$	$5\frac{19}{45}$
11)	$1\frac{7}{12} + 3\frac{3}{10} =$	$4\frac{53}{60}$
12)	$2\frac{3}{8} + 3\frac{4}{11} =$	$5\frac{65}{88}$

17- Subtract fractions from mixed numbers

1)	$3\frac{1}{4} - \frac{3}{8} =$	$2\frac{7}{8}$
2)	$4\frac{1}{3} - \frac{5}{6} =$	$3\frac{3}{6}$
3)	$2\frac{1}{2} - \frac{3}{4} =$	$1\frac{3}{4}$
4)	$5\frac{1}{6} - \frac{2}{3} =$	$4\frac{3}{6}$
5)	$3\frac{1}{8} - \frac{5}{16} =$	$2\frac{13}{16}$
6)	$4\frac{2}{9} - \frac{4}{9} =$	$3\frac{7}{9}$
7)	$2\frac{3}{7} - \frac{5}{9} =$	$1\frac{55}{63}$
8)	$5\frac{2}{11} - \frac{4}{9} =$	$4\frac{73}{99}$
9)	$3\frac{1}{5} - \frac{2}{7} =$	$2\frac{32}{35}$
10)	$4\frac{3}{8} - \frac{5}{12} =$	$3\frac{23}{24}$
11)	$2\frac{5}{11} - \frac{7}{10} =$	$1\frac{33}{110}$
12)	$5\frac{4}{9} - \frac{6}{11} =$	$4\frac{89}{99}$

18- Multiply fractions by integers

1)	$\frac{5}{6} \times 4 =$	$\frac{20}{6} = 3\frac{2}{6}$
2)	$5 \times \frac{7}{8} =$	$\frac{35}{8} = 4\frac{3}{8}$
3)	$\frac{3}{8} \times 3 =$	$\frac{9}{8} = 1\frac{1}{8}$
4)	$\frac{4}{11} \times 12 =$	$\frac{48}{11} = 4\frac{4}{11}$
5)	$2 \times \frac{5}{7} =$	$\frac{10}{7} = 1\frac{3}{7}$
6)	$\frac{2}{5} \times 4 =$	$\frac{8}{5} = 1\frac{3}{5}$
7)	$\frac{4}{9} \times 7 =$	$\frac{28}{9} = 3\frac{1}{9}$
8)	$9 \times \frac{7}{12} =$	$\frac{63}{12} = 5\frac{3}{12}$
9)	$\frac{8}{11} \times 12 =$	$\frac{96}{11} = 8\frac{8}{11}$
10)	$8 \times \frac{3}{5} =$	$\frac{24}{5} = 4\frac{4}{5}$
11)	$\frac{7}{8} \times 3 =$	$\frac{21}{8} = 2\frac{5}{8}$
12)	$6 \times \frac{2}{9} =$	$\frac{12}{9} = 1\frac{3}{9}$

19- Multiply mixed numbers by integers

1)	$3\frac{1}{2} \times 4 =$	14
2)	$2\frac{3}{4} \times 6 =$	$16\frac{3}{4}$
3)	$5\frac{1}{3} \times 3 =$	16
4)	$8 \times 1\frac{5}{6} =$	$14\frac{4}{6}$
5)	$4\frac{1}{4} \times 5 =$	$21\frac{1}{4}$
6)	$7 \times 2\frac{2}{5} =$	$16\frac{4}{5}$
7)	$6\frac{1}{2} \times 2 =$	13
8)	$9 \times 3\frac{3}{8} =$	$30\frac{3}{8}$
9)	$7\frac{1}{3} \times 4 =$	$29\frac{1}{3}$
10)	$1\frac{7}{10} \times 12 =$	$20\frac{4}{10}$
11)	$6 \times 5\frac{2}{9} =$	$31\frac{3}{9}$
12)	$8\frac{1}{4} \times 3 =$	$24\frac{3}{4}$

20- Multiply pairs of fractions

1)	$\frac{3}{4} \times \frac{7}{8} =$	$\frac{21}{32}$
2)	$\frac{2}{3} \times \frac{6}{11} =$	$\frac{12}{33}$
3)	$\frac{9}{10} \times \frac{4}{5} =$	$\frac{36}{50}$
4)	$\frac{1}{8} \times \frac{4}{5} =$	$\frac{4}{40}$
5)	$\frac{3}{11} \times \frac{7}{8} =$	$\frac{21}{88}$
6)	$\frac{7}{12} \times \frac{4}{9} =$	$\frac{28}{108}$
7)	$\frac{7}{8} \times \frac{11}{12} =$	$\frac{77}{96}$
8)	$\frac{2}{5} \times \frac{3}{4} =$	$\frac{6}{20}$
9)	$\frac{6}{7} \times \frac{4}{5} =$	$\frac{24}{35}$
10)	$\frac{2}{11} \times \frac{5}{7} =$	$\frac{10}{77}$
11)	$\frac{3}{7} \times \frac{4}{11} =$	$\frac{12}{77}$
12)	$\frac{6}{12} \times \frac{3}{5} =$	$\frac{18}{60}$

21- Divide fractions by integers		
1)	$\frac{3}{4} \div 6 =$	$\frac{3}{24}$
2)	$\frac{7}{8} \div 12 =$	$\frac{7}{96}$
3)	$\frac{4}{5} \div 11 =$	$\frac{4}{55}$
4)	$\frac{3}{7} \div 9 =$	$\frac{3}{63}$
5)	$\frac{2}{3} \div 10 =$	$\frac{2}{30}$
6)	$\frac{3}{8} \div 4 =$	$\frac{3}{32}$
7)	$\frac{4}{5} \div 8 =$	$\frac{4}{40}$
8)	$\frac{2}{9} \div 5 =$	$\frac{2}{45}$
9)	$\frac{3}{9} \div 7 =$	$\frac{3}{63}$
10)	$\frac{5}{11} \div 8 =$	$\frac{5}{88}$
11)	$\frac{7}{12} \div 9 =$	$\frac{7}{108}$
12)	$\frac{5}{9} \div 4 =$	$\frac{5}{36}$

22- Find fractions of numbers		
1)	$\frac{1}{2}$ of 160 =	80
2)	$\frac{1}{4}$ of 320 =	80
3)	$\frac{3}{5}$ of 250 =	150
4)	$\frac{2}{3}$ of 90 =	60
5)	$\frac{5}{8}$ of 400 =	250
6)	$\frac{3}{4}$ of 600 =	250
7)	$\frac{2}{9}$ of 450 =	100
8)	$\frac{7}{10}$ of 900 =	630
9)	$\frac{4}{7}$ of 350 =	200
10)	$\frac{3}{8}$ of 480 =	180
11)	$\frac{6}{11}$ of 550 =	300
12)	$\frac{5}{12}$ of 960 =	400

23- Subtract mixed numbers		
1)	$4\frac{3}{4} - 2\frac{1}{2} =$	$2\frac{1}{4}$
2)	$5\frac{5}{6} - 3\frac{1}{3} =$	$2\frac{3}{6}$
3)	$3\frac{7}{8} - 1\frac{1}{4} =$	$2\frac{5}{8}$
4)	$6\frac{2}{3} - 4\frac{1}{6} =$	$2\frac{3}{6}$
5)	$5\frac{3}{10} - 2\frac{2}{5} =$	$2\frac{9}{10}$
6)	$4\frac{9}{12} - 1\frac{1}{4} =$	$3\frac{1}{2}$
7)	$3\frac{4}{7} - 1\frac{2}{5} =$	$2\frac{6}{35}$
8)	$6\frac{5}{11} - 2\frac{3}{8} =$	$4\frac{7}{88}$
9)	$4\frac{3}{5} - 2\frac{4}{7} =$	$2\frac{1}{35}$
10)	$5\frac{7}{9} - 3\frac{2}{11} =$	$2\frac{59}{99}$
11)	$3\frac{5}{8} - 1\frac{3}{10} =$	$2\frac{13}{40}$
12)	$6\frac{4}{9} - 2\frac{5}{11} =$	$3\frac{98}{99}$

24- Add and subtract decimals		
1)	$5.6 + 4.532 =$	10.132
2)	$6.3 - 4.785 =$	1.515
3)	$8.535 - 3.8 =$	4.735
4)	$15.5 - 9.56 =$	5.94
5)	$9.5 + 3.424 =$	12.924
6)	$8.03 - 4.442 =$	3.588
7)	$11.4 - 6.35 =$	5.05
8)	$5.03 + 15.32 =$	20.35
9)	$8.4 - 6.332 =$	2.068
10)	$16.43 + 6.744 =$	23.174
11)	$9.674 - 5.98 =$	3.694
12)	$17.4 + 5.42 =$	22.82

25- Add and subtract whole numbers and decimals		
1)	$14 + 3.726 =$	17.726
2)	$22.48 - 7 =$	15.48
3)	$9 + 8.305 =$	17.305
4)	$18.72 - 5 =$	13.72
5)	$6 + 12.534 =$	18.534
6)	$23.5 - 4 =$	19.5
7)	$11 + 7.406 =$	18.406
8)	$20.83 - 9 =$	11.83
9)	$4 + 15.297 =$	19.297
10)	$17.64 - 3 =$	14.64
11)	$8 + 6.915 =$	14.915
12)	$24.3 - 2 =$	22.3

26- One-step percentages		
1)	50% of 84 =	42
2)	25% of 60 =	15
3)	20% x 150 =	30
4)	10% of 470 =	47
5)	1% x 900 =	9
6)	50% of 132 =	66
7)	25% of 48 =	12
8)	20% x 95 =	19
9)	10% of 360 =	36
10)	1% x 540 =	5.4
11)	50% of 178 =	89
12)	20% x 240 =	48

27- Percentages		
1)	54% of 350 =	189
2)	64% of 5,800 =	3,712
3)	82% of 2,600 =	2,132
4)	95% of 240 =	228
5)	45% of 340 =	153
6)	76% of 5,600 =	4,256
7)	74% of 800 =	592
8)	34% of 6,800 =	2,312
9)	79% of 5,000 =	3,950
10)	12% of 150 =	18
11)	85% of 320 =	272
12)	7% of 500 =	35

28- Square and cube numbers		
1)	$5^2 =$	25
2)	$4^2 =$	16
3)	$1^3 =$	1
4)	$3^3 =$	27
5)	$4^3 =$	64
6)	$8^2 =$	64
7)	$11^2 =$	121
8)	$5^3 =$	125
9)	$6^3 =$	216
10)	$6^2 =$	36
11)	$2^3 =$	8
12)	$12^2 =$	144

29- Roman numerals		
1)	760 =	DCCLX
2)	984 =	CMLXXXIV
3)	CDXII =	412
4)	CMIII =	903
5)	DCCLXX =	770
6)	340 =	CCCXL
7)	425 =	CDXXV
8)	CXL =	140
9)	CCLXV =	265
10)	180 =	CLXXX
11)	DCL =	650
12)	590 =	DXC

30- Calculate the mean		
1)	Mean of 4, 6, 8	6
2)	Mean of 3, 5, 7, 9	6
3)	Mean of 2, 4, 6, 8, 10	6
4)	Mean of 5, 5, 6, 4	5
5)	Mean of 12, 18, 20	16.67
6)	Mean of 25, 30, 15, 20	22.5
7)	Mean of 14, 22, 18, 26, 20	20
8)	Mean of 35, 40, 25, 30	32.5
9)	Mean of 120, 150, 180	150
10)	Mean of 200, 240, 260, 300	250
11)	Mean of 320, 310, 330, 340, 300	320
12)	Mean of 450, 500, 550, 600	525

31- Mixed numbers to improper fractions		
1)	$2\frac{3}{4} =$	$\frac{11}{4}$
2)	$5\frac{1}{3} =$	$\frac{16}{3}$
3)	$3\frac{5}{6} =$	$\frac{23}{6}$
4)	$4\frac{2}{7} =$	$\frac{30}{7}$
5)	$1\frac{3}{8} =$	$\frac{11}{8}$
6)	$6\frac{4}{5} =$	$\frac{34}{5}$
7)	$3\frac{7}{9} =$	$\frac{34}{9}$
8)	$2\frac{5}{11} =$	$\frac{27}{11}$
9)	$4\frac{1}{2} =$	$\frac{9}{2}$
10)	$5\frac{3}{10} =$	$\frac{53}{10}$
11)	$1\frac{4}{12} =$	$\frac{16}{12}$
12)	$6\frac{2}{9} =$	$\frac{56}{9}$

32- Improper fractions to mixed numbers		
1)	$\frac{17}{4} =$	$4\frac{1}{4}$
2)	$\frac{29}{6} =$	$4\frac{5}{6}$
3)	$\frac{25}{7} =$	$3\frac{4}{7}$
4)	$\frac{19}{5} =$	$3\frac{4}{5}$
5)	$\frac{32}{9} =$	$3\frac{5}{9}$
6)	$\frac{41}{8} =$	$5\frac{1}{8}$
7)	$\frac{27}{11} =$	$2\frac{5}{11}$
8)	$\frac{34}{10} =$	$3\frac{4}{10}$
9)	$\frac{23}{3} =$	$7\frac{2}{3}$
10)	$\frac{38}{12} =$	$3\frac{2}{12}$
11)	$\frac{45}{7} =$	$6\frac{3}{7}$
12)	$\frac{50}{9} =$	$5\frac{5}{9}$

33- Simplify fractions		
1)	$\frac{6}{8} =$	$\frac{3}{4}$
2)	$\frac{15}{20} =$	$\frac{3}{4}$
3)	$\frac{9}{12} =$	$\frac{3}{4}$
4)	$\frac{14}{21} =$	$\frac{2}{3}$
5)	$\frac{18}{24} =$	$\frac{3}{4}$
6)	$\frac{16}{40} =$	$\frac{2}{5}$
7)	$\frac{27}{36} =$	$\frac{3}{4}$
8)	$\frac{10}{25} =$	$\frac{2}{5}$
9)	$\frac{28}{32} =$	$\frac{7}{8}$
10)	$\frac{12}{30} =$	$\frac{2}{5}$
11)	$\frac{77}{88} =$	$\frac{7}{8}$
12)	$\frac{45}{60} =$	$\frac{3}{4}$

34- Fractions and decimals		
1)	$\frac{3}{8} =$	0.375
2)	0.6 =	$\frac{3}{5}$
3)	$\frac{7}{10} =$	0.7
4)	0.32 =	$\frac{8}{25}$
5)	$\frac{9}{20} =$	0.45
6)	0.18 =	$\frac{9}{50}$
7)	$\frac{4}{5} =$	0.8
8)	0.12 =	$\frac{3}{25}$
9)	$\frac{7}{8} =$	0.875
10)	0.24 =	$\frac{6}{25}$
11)	$\frac{11}{50} =$	0.22
12)	0.36 =	$\frac{9}{25}$

35- Fractions and percentages		
1)	$\frac{3}{5} =$	60%
2)	28%	$\frac{7}{25}$
3)	$\frac{4}{25} =$	16%
4)	90%	$\frac{9}{10}$
5)	$\frac{11}{20} =$	55%
6)	6% =	$\frac{3}{50}$
7)	$\frac{7}{50} =$	14%
8)	25% =	$\frac{1}{4}$
9)	$\frac{9}{50} =$	18%
10)	64% =	$\frac{16}{25}$
11)	$\frac{1}{20} =$	5%
12)	52% =	$\frac{13}{25}$

36- Decimals and percentages		
1)	0.05 =	5%
2)	30% =	0.3
3)	0.8 =	80%
4)	99% =	0.99
5)	0.45 =	45%
6)	4% =	0.04
7)	0.02 =	2%
8)	60% =	0.6
9)	0.63 =	63%
10)	40% =	0.4
11)	0.01 =	1%
12)	13% =	0.13

37- Area and perimeter of rectangles	
1)	area = 48 cm ² perimeter = 32 cm
2)	area = 24 cm ² perimeter = 22 cm
3)	area = 55 cm ² perimeter = 32 cm
4)	area = 36 cm ² perimeter = 84 cm
5)	area = 54 cm ² perimeter = 30 cm
6)	area = 100 cm ² perimeter = 140 cm
7)	area = 300 cm ² perimeter = 80 cm
8)	area = 60 cm ² perimeter = 38 cm
9)	area = 40 cm ² perimeter = 26 cm
10)	area = 360 cm ² perimeter = 98 cm
11)	area = 21 cm ² perimeter = 20 cm ²
12)	area = 39 cm ² perimeter = 32 cm

39- Find time differences	
1)	2 hours 30 minutes
2)	2 hours 30 minutes
3)	1 hour 55 minutes
4)	2 hours 45 minutes
5)	1 hour 50 minutes
6)	2 hours 45 minutes
7)	2 hours 30 minutes
8)	2 hours 15 minutes
9)	1 hour 20 minutes
10)	2 hours 45 minutes
11)	1 hour 45 minutes
12)	2 hours 30 minutes

38- Area of triangles and parallelograms	
1)	20 cm ²
2)	30 cm ²
3)	24 cm ²
4)	36 cm ²
5)	60 cm ²
6)	6 cm ²
7)	24 cm ²
8)	24 cm ²
9)	40 cm ²
10)	6 cm ²
11)	22 cm ²
12)	16 cm ²

40- Metric measures- mass	
1)	3,600 g = 3.6 kg
2)	2.45 kg = 2,450 g
3)	0.6 kg = 600 g
4)	2,040 g = 2.04 kg
5)	450 g = 0.45 kg
6)	0.72 kg = 720 g
7)	1,250 g = 1.25 kg
8)	3.5 kg = 3,500 g
9)	975 g = 0.975 kg
10)	4.08 kg = 4,080 g
11)	1.9 kg = 1,900 g
12)	820 g = 0.82 kg

41- Metric measures- capacity	
1)	975 ml = 0.975 l
2)	1.9 l = 1,900 ml
3)	450 ml = 0.45 l
4)	2,040 ml = 2.04 l
5)	2.45 l = 2,450 ml
6)	820 ml = 0.82 l
7)	3.5 l = 3,500 ml
8)	0.72 l = 720 ml
9)	4.08 l = 4,080 ml
10)	1,250 ml = 1.25 l
11)	3,600 ml = 3.6 l
12)	0.09 l = 90 ml

42- Metric measures- length	
1)	0.48 km = 480 m
2)	24 cm = 240 mm
3)	3,500 m = 3.5 km
4)	1,200 m = 1.2 km
5)	87 cm = 870 mm
6)	350 cm = 3.5 m
7)	125 cm = 1.25 m
8)	4.2 m = 420 cm
9)	0.75 m = 75 cm
10)	2.6 km = 2,600 m
11)	560 mm = 56 cm
12)	1,240 mm = 124 cm

43- Order of operations		
1)	$6 + 4 \times 3 =$	18
2)	$(8 + 2) \times 5 =$	50
3)	$20 - 12 \div 3 =$	16
4)	$7 \times (9 - 5) =$	28
5)	$18 \div 3 + 4 \times 2 =$	14
6)	$(15 - 6) \times 4 =$	36
7)	$30 \div (5 + 1) \times 3 =$	15
8)	$12 + 8 \div 2 \times 3 =$	24
9)	$(40 - 16) \div 4 + 7 =$	13
10)	$9 \times 3 - (10 - 4) =$	21
11)	$50 \div 5 + (6 \times 2) =$	22
12)	$(28 \div 4) \times (9 - 6) =$	21

44- 10, 100, 1,000 more and less		
1)	10 more than 4,385 =	4,395
2)	1000 more than 2,915 =	3,915
3)	10 less than 2,504 =	2,494
4)	100 more than 3,248 =	3,348
5)	1000 less than 9,430 =	8,430
6)	1000 more than 5,602 =	6,602
7)	100 less than 8,930 =	8,830
8)	10 more than 9,670 =	9,680
9)	100 less than 1,480 =	1,380
10)	10 less than 7,920 =	7,910
11)	1000 less than 7,890 =	6,890
12)	100 more than 6,705 =	6,805

45- Multiply three numbers

1)	$3 \times 4 \times 2 =$	24
2)	$5 \times 2 \times 6 =$	60
3)	$7 \times 3 \times 4 =$	84
4)	$6 \times 2 \times 8 =$	96
5)	$9 \times 5 \times 2 =$	90
6)	$4 \times 3 \times 7 =$	84
7)	$8 \times 6 \times 2 =$	96
8)	$12 \times 3 \times 2 =$	72
9)	$10 \times 4 \times 3 =$	120
10)	$11 \times 2 \times 5 =$	110
11)	$12 \times 4 \times 3 =$	144
12)	$9 \times 3 \times 6 =$	162

47- Compare and order decimals

1)	Numbers: 0.6, 0.25, 0.625, 0.2, 0.75	Answer: 0.2, 0.25, 0.6, 0.625, 0.75
2)	Numbers: 1.2, 0.9, 1.05, 1.25, 0.95	Answer: 0.9, 0.95, 1.05, 1.2, 1.25
3)	Numbers: 2.5, 2.05, 2.75, 2.1, 2.25	Answer: 2.05, 2.1, 2.25, 2.5, 2.75
4)	Numbers: 0.45, 0.4, 0.425, 0.5, 0.48	Answer: 0.4, 0.425, 0.45, 0.48, 0.5
5)	Numbers: 3.2, 3.05, 3.125, 3.075, 3.01	Answer: 3.01, 3.05, 3.075, 3.125, 3.2
6)	Numbers: 0.9, 0.85, 0.875, 0.95, 0.8	Answer: 0.8, 0.85, 0.875, 0.9, 0.95
7)	Numbers: 4.5, 4.25, 4.125, 4.75, 4.6	Answer: 4.125, 4.25, 4.5, 4.6, 4.75
8)	Numbers: 1.005, 1.05, 1.5, 1.25, 1.075	Answer: 1.005, 1.05, 1.075, 1.25, 1.5
9)	Greater than 0.45 Numbers: 0.3, 0.45, 0.5, 0.75, 0.42, 0.6	Correct answers: 0.5, 0.75, 0.6
10)	Greater than 1.25 Numbers: 1.1, 1.25, 1.3, 1.05, 1.5, 1.2	Correct answers: 1.3, 1.5
11)	Greater than 2.075 Numbers: 2.01, 2.075, 2.1, 2.25, 2.05, 2.5	Correct answers: 2.1, 2.25, 2.5
12)	Greater than 0.625 Numbers: 0.5, 0.625, 0.7, 0.8, 0.6, 0.45	Correct answers: 0.7, 0.8

46- Equivalent fractions

1)	$\frac{18}{24} = \frac{3}{4}$	
2)	$\frac{2}{3} = \frac{8}{12}$	
3)	$\frac{9}{12} = \frac{3}{4}$	
4)	$\frac{4}{5} = \frac{16}{20}$	
5)	$\frac{21}{28} = \frac{3}{4}$	
6)	$\frac{5}{6} = \frac{25}{30}$	
7)	$\frac{12}{16} = \frac{3}{4}$	
8)	$\frac{7}{9} = \frac{21}{27}$	
9)	$\frac{10}{25} = \frac{2}{5}$	
10)	$\frac{6}{7} = \frac{18}{21}$	
11)	$\frac{4}{11} = \frac{16}{44}$	
12)	$\frac{3}{8} = \frac{12}{32}$	

48- Compare and order fractions

1)	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{2}{3}$	$\frac{5}{6}$
2)	$\frac{3}{10}$	$\frac{2}{5}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{4}{5}$
3)	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{5}{12}$	$\frac{3}{8}$	$\frac{2}{3}$
4)	$\frac{1}{10}$	$\frac{7}{20}$	$\frac{3}{5}$	$\frac{2}{3}$	$\frac{9}{10}$
5)	$\frac{2}{9}$	$\frac{1}{3}$	$\frac{7}{18}$	$\frac{4}{9}$	$\frac{5}{6}$
6)	$\frac{1}{8}$	$\frac{5}{16}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$
7)	$\frac{3}{10}$	$\frac{4}{15}$	$\frac{7}{20}$	$\frac{3}{5}$	$\frac{1}{2}$
8)	$\frac{1}{9}$	$\frac{7}{36}$	$\frac{5}{18}$	$\frac{2}{3}$	$\frac{3}{4}$
9)	$\frac{3}{5}$	$\frac{1}{2}$	$\frac{4}{9}$		
10)	$\frac{1}{2}$	$\frac{5}{12}$			
11)	$\frac{5}{9}$	$\frac{2}{3}$			
12)	$\frac{3}{8}$	$\frac{2}{5}$	$\frac{4}{11}$		

49- Find the starting number	
1)	162
2)	6
3)	43
4)	11
5)	76
6)	30
7)	27
8)	34
9)	98
10)	38
11)	15
12)	58

51- Place value- missing value	
1)	$48,302 = 40,000 + 8,000 + 300 + 2$
2)	$600,000 + 40,000 + 7,000 + 500 + 2 = 647,502$
3)	$93,418 = 90,000 + 3,000 + 400 + 10 + 8$
4)	$300,000 + 40,000 + 5,000 + 600 + 50 + 4 = 345,654$
5)	$712,905 = 700,000 + 10,000 + 2,000 + 900 + 5$
6)	$800,000 + 20,000 + 3,000 + 80 + 6 = 823,086$
7)	$54,709 = 50,000 + 4,000 + 700 + 9$
8)	$900,000 + 5,000 + 400 + 3 = 905,403$
9)	$261,834 = 200,000 + 60,000 + 1,000 + 800 + 30 + 4$
10)	$700,000 + 50,000 + 4,000 + 20 + 9 = 754,029$
11)	$406,512 = 400,000 + 6,000 + 500 + 10 + 2$
12)	$500,000 + 30,000 + 400 + 7 = 530,407$

50- Place value- underlined digit		
1)	Number: <u>4</u> ,382,719 a) Which digit is in the ten-thousands place? b) What is the value of the digit 8?	a)8 b)80,000
2)	Number: 7, <u>5</u> 40,286 a) Which digit is in the hundreds place? b) What is the value of the digit 7?	a)2 b)7,000,000
3)	Number: 9, <u>2</u> 14,653 a) Which digit is in the hundred-thousands place? b) What is the value of the digit 5?	a)2 b)50
4)	Number: 3, <u>8</u> 06,491 a) Which digit is in the thousands place? b) What is the value of the digit 3?	a)6 b)3,000,000
5)	Number: 6, <u>1</u> 29,874 a) Which digit is in the tens place? b) What is the value of the digit 9?	a)7 b)900,000
6)	Number: 8, <u>7</u> 03,562 a) Which digit is in the millions place? b) What is the value of the digit 6?	a)8 b)60
7)	Number: 5, <u>4</u> 91,320 a) Which digit is in the hundred-thousands place? b) What is the value of the digit 3?	a)4 b)300
8)	Number: 2, <u>6</u> 58,947 a) Which digit is in the hundreds place? b) What is the value of the digit 2?	a)9 b)2,000,000
9)	Number: 1,9 <u>7</u> 4,530 a) Which digit is in the ten-thousands place? b) What is the value of the digit 4?	a)7 b)4,000
10)	Number: 4, <u>8</u> 67,219 a) Which digit is in the thousands place? b) What is the value of the digit 8?	a)7 b)8,000,000
11)	Number: 7, <u>3</u> 15,864 a) Which digit is in the tens place? b) What is the value of the digit 1?	a)6 b)10,000
12)	Number: 9, <u>0</u> 42,671 a) Which digit is in the hundreds place? b) What is the value of the digit 2?	a)6 b)2,000

52- Rounding	
1)	<p>Number: 5,694,494</p> <ul style="list-style-type: none"> •Nearest 10: 5,694,490 •Nearest 100: 5,694,500 •Nearest 1,000: 5,694,000 •Nearest 10,000: 5,690,000 •Nearest 100,000: 5,700,000
2)	<p>Number: 3,218,765</p> <ul style="list-style-type: none"> •Nearest 10: 3,218,770 •Nearest 100: 3,218,800 •Nearest 1,000: 3,219,000 •Nearest 10,000: 3,220,000 •Nearest 100,000: 3,200,000
3)	<p>Number: 8,406,129</p> <ul style="list-style-type: none"> •Nearest 10: 8,406,130 •Nearest 100: 8,406,100 •Nearest 1,000: 8,406,000 •Nearest 10,000: 8,410,000 •Nearest 100,000: 8,400,000
4)	<p>Number: 2,975,381</p> <ul style="list-style-type: none"> •Nearest 10: 2,975,380 •Nearest 100: 2,975,400 •Nearest 1,000: 2,975,000 •Nearest 10,000: 2,980,000 •Nearest 100,000: 3,000,000
5)	<p>Number: 6,143,257</p> <ul style="list-style-type: none"> •Nearest 10: 6,143,260 •Nearest 100: 6,143,300 •Nearest 1,000: 6,143,000 •Nearest 10,000: 6,140,000 •Nearest 100,000: 6,100,000
6)	<p>Number: 4,802,694</p> <ul style="list-style-type: none"> •Nearest 10: 4,802,690 •Nearest 100: 4,802,700 •Nearest 1,000: 4,803,000 •Nearest 10,000: 4,800,000 •Nearest 100,000: 4,800,000

7)	<p>Number: 7,159,832</p> <ul style="list-style-type: none"> •Nearest 10: 7,159,830 •Nearest 100: 7,159,800 •Nearest 1,000: 7,160,000 •Nearest 10,000: 7,160,000 •Nearest 100,000: 7,200,000
8)	<p>Number: 1,306,478</p> <ul style="list-style-type: none"> •Nearest 10: 1,306,480 •Nearest 100: 1,306,500 •Nearest 1,000: 1,306,000 •Nearest 10,000: 1,310,000 •Nearest 100,000: 1,300,000
9)	<p>Number: 9,274,165</p> <ul style="list-style-type: none"> •Nearest 10: 9,274,170 •Nearest 100: 9,274,200 •Nearest 1,000: 9,274,000 •Nearest 10,000: 9,270,000 •Nearest 100,000: 9,300,000
10)	<p>Number: 2,587,349</p> <ul style="list-style-type: none"> •Nearest 10: 2,587,350 •Nearest 100: 2,587,300 •Nearest 1,000: 2,587,000 •Nearest 10,000: 2,590,000 •Nearest 100,000: 2,600,000
11)	<p>Number: 6,920,581</p> <ul style="list-style-type: none"> •Nearest 10: 6,920,580 •Nearest 100: 6,920,600 •Nearest 1,000: 6,921,000 •Nearest 10,000: 6,920,000 •Nearest 100,000: 6,900,000
12)	<p>Number: 3,405,726</p> <ul style="list-style-type: none"> •Nearest 10: 3,405,730 •Nearest 100: 3,405,700 •Nearest 1,000: 3,406,000 •Nearest 10,000: 3,410,000 •Nearest 100,000: 3,400,000

53- Coordinates	
1)	<p>A (7,-8) B (9,1) C (-8,-5) D (-3,8) E (-9,6) F (1,-2)</p>
2)	

3)	A (7,6)
4)	B (12,2)
5)	C (7,9)
6)	D (3,10) E (5,8)

54- Reflecting

1)	
2)	
3)	
4)	

5)	
6)	
7)	
8)	

9)	
10)	
11)	
12)	

55- Translating

1)	
2)	
3)	
4)	

5)	
6)	
7)	
8)	

9)	
10)	
11)	
12)	

56- Negative number sequences					
1)	-14	-8	-2	4	10
2)	17	12	7	2	-3
3)	-13	-9	-5	-1	3
4)	-12	-5	2	9	16
5)	13	10	7	4	1
6)	-27	-17	-7	3	13
7)	19	11	3	-5	-13
8)	5	3	1	-1	3
9)	-24	-15	-6	3	12
10)	36	25	14	3	-8
11)	-11	-6	-1	4	9
12)	17	11	5	-1	-7

57- Prime numbers		
1)	8, 12, 19 , 20	
2)	21, 43 , 27, 45	
3)	50, 72, 90, 89	
4)	47 , 14, 28, 25	
5)	Which two prime numbers add to make 12?	5 + 7
6)	Which two prime numbers add to make 16?	3 + 13 11 + 5
7)	Which two prime numbers add to make 18?	5 + 13 11 + 7
8)	Which two prime numbers add to make 10?	3 + 7
9)	Circle two prime numbers with a difference of 2. 69, 71 , 73 , 19, 21, 16,	
10)	Circle two prime numbers with a difference of 2. 1, 5 , 9, 7 , 11, 2	
11)	Circle two prime numbers with a difference of 3. 1, 3, 2 , 10, 7, 5 , 13	
12)	Circle two prime numbers with a difference of 4. 43 , 41, 44, 47 , 49, 53	

58- Equality statements	
1)	$200 + 40 = \mathbf{6} \times 40$
2)	$300 - \mathbf{90} = 7 \times 30$
3)	$\mathbf{400} \div 2 = 8 \times 25$
4)	$600 - \mathbf{240} = 9 \times 40$
5)	$150 + \mathbf{150} = 5 \times 60$
6)	$560 \div 2 = 40 \times \mathbf{7}$
7)	$540 \div 2 = \mathbf{3} \times 90$
8)	$180 \div \mathbf{2} = 2 \times 45$
9)	$420 \div 2 = \mathbf{6} \times 35$
10)	$140 + \mathbf{140} = 7 \times 40$
11)	$480 \div 2 = \mathbf{8} \times 30$
12)	$300 - \mathbf{75} = 9 \times 25$

59- Angles in triangles	
1)	$x = 50^\circ$
2)	$x = 31^\circ$
3)	$x = 71^\circ$
4)	$x = 25^\circ$
5)	$x = 68^\circ$
6)	$x = 43^\circ$
7)	$x = 54^\circ$
8)	$x = 66^\circ$
9)	$x = 45^\circ$
10)	$x = 12^\circ$
11)	$x = 60^\circ$
12)	$x = 14^\circ$

60- Angles in quadrilaterals	
1)	$x = 108^\circ$
2)	$x = 65^\circ$
3)	$x = 118^\circ$
4)	$x = 77^\circ$
5)	$x = 73^\circ$
6)	$x = 50^\circ$
7)	$x = 65^\circ$
8)	$x = 94^\circ$
9)	$x = 58^\circ$
10)	$x = 126^\circ$
11)	$x = 210^\circ$
12)	$x = 76^\circ$

SAMPLE