

- 1) How many gifts were given on each day?
- 2) How many gifts were given in total?
- 3) How many of each gift were given?
- 4) How many birds were given in total?
- 5) How many instruments were given in total?
- 6) Including the cows that were gifted with the maids, how many legs would there be in total?
- 7) How many birds were given on days 6 and 7 in total?

Challenge:

- The amounts of gifts given each day are called triangular numbers. Why? (Hint: think arrays)
- What link can you find between triangle numbers and square numbers?
- Can a triangle number ever be a square number?

1) How many gifts were given on each day?

**Day 1 = 1    Day 2 = 3    Day 3 = 6    Day 4 = 10**

**Day 5 = 15    Day 6 = 21    Day 7 = 28    Day 8 = 36**

**Day 9 = 45    Day 10 = 55    Day 11 = 66    Day 12 = 78**

2) How many gifts were given in total? **364**

3) How many of each gift were given?

**Partridge in a pear tree = 12**

**Turtle doves = 22**

**French hens = 30**

**Calling birds = 36**

**Gold rings = 40**

**Geese laying = 42**

**Swans swimming = 42**

**Maids milking = 40**

**Ladies dancing = 36**

**Lords leaping = 30**

**Pipers piping = 22**

**Drummers drumming = 12**

4) How many birds were given in total? **184**

5) How many instruments were given in total? **34**

6) Including the cows that were gifted with the maids, how many legs would there be in total? **768**

7) How many birds were given on days 6 and 7 in total? **39**

Challenge:

- The amounts of gifts given each day are called triangular numbers. Why? (Hint: think arrays)
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