

## F Michaelmas Word Equations

1. Adriana thinks of two numbers. The sum of these two numbers is 2. The difference between these two numbers is  $\frac{1}{2}$ . Find the two numbers.  $\frac{5}{4}, \frac{3}{4}$
2. Some chickens and sheep are grazing in a field. In total there are 30 animals (each with the normal number of legs). In total there are 104 legs. Find the number of chickens and the number of sheep in the field. 8 chickens, 22 sheep
3. Justin has a collection of 2p and 5p coins in his pocket. He has a total of 18 coins. Their total value is 51p. Find the number of 2p and the number of 5p coins in his pocket. 13 2p coins, 5 5p coins
4. A bag contains a selection of squares and triangles. There are 23 in total. If there are 72 edges in total, find the number of triangles in the bag. 3 squares, 20 triangles
5. 300 people attend a concert where the cheap seats are £6 and the expensive seats £15. If £2520 is raised in total, how many of each type of seat are there? 220 cheap, 80 expensive
6. Jon is paid 50p each day to teach. However he is fined 25p for each day he doesn't turn up. After 20 days he is paid £7. For how many days did he work? turn up 16 days, miss 4 days
7. 17 jars of cockles and 12 jars of mussels cost £35.70 altogether. 5 jars of cockles cost £4.95 more than 3 jars of mussels. How much does each jar cost? cockles £1.50, mussels £0.85
8. (Cayley) An aquarium contains 280 tropical fish of various kinds. If 60 more clownfish were added to the aquarium, the proportion of clownfish would be doubled. How many clownfish are in the aquarium?