

- Arash's bag of sweets contains  $2t$  red,  $(t + 1)$  yellow and  $(3t - 4)$  green sweets. He licks each one twice then puts it back in his bag. If there are 27 sweets in the bag, find out the number of -
  - yellow sweets, and
  - green sweets.
- Josh loves triangles. He has them painted on everything including his favourite pair of baby blue pyjamas. Josh's favourite triangle has angles of  $2x$ ,  $x + 10$ , and  $x - 30$ . Find the magnitude of each angle.
- Alex draws a square with a side of  $3a$ . He is very proud as this is quite an achievement for him. If the perimeter of the square is 24, then find
  - the length of each side, and
  - the area of the square.
- Charlie pays 96 pence for a pen and a pencil paying in  $1p$  and  $2p$  coins from his favourite yellow piggy bank. The pen costs 5 times as much as the pencil. The pencil costs  $m$  pence.
  - Write down an expression, in terms of  $m$ , for the cost of the pen.
  - Work out the cost of the pen.
- Dhairya thinks of a number; he is strange like that. He multiplies it by 4 then subtracts 5. His answer is 27. Work out his number.
- Khizer collects soft cuddly toys. He has  $y$  cuddly kittens,  $y + 20$  cuddly teddy bears, and  $3y$  cuddly lambs. If he has 60 cuddly toys, find out how many he has of each.
- Chantelle buys 3 cartons of eggs to throw at her school teachers. Each carton contains  $k$  eggs. She drops one carton and breaks 4 eggs. Chantelle has 23 eggs left. How many eggs were in each carton originally?
- Ashwin is told that five times a number minus 6 is the same as three times the number but he isn't smart enough to be able to work the number out. Find the number for him before he starts to cry.
- Handsome Ken, genius and chicken breeder, has 4 times as many chickens as finches, and one and a half times as many budgies as finches. This great man has 130 chickens, finches and budgies in total. Find out how many wonderful Ken has of each type of bird.
- Priya loves geometry so much that she burst into tears of joy when she found a square and a rectangle with the same area. She celebrates this day each year. The rectangle had sides of  $b$  and  $b + 12$ , and the square has sides of  $2b$ . Find the sides of each of the shapes that made Priya so happy.
- Anisha, Aarti, and Lakshya enter a weight lifting competition and each win prizes beating all the boys. Lakshya's prize is  $x^2$ , Anisha wins  $3x + 3$ , and Aarti collects  $x + 5$ . They share a prize fund of £200. Write
  - Write an expression, in terms of  $x$ , for the total prize money.
  - Calculate how much each girl wins.