Form an equation and solve it to find the number

a Six more than 4 times a number is equal to 18.

b Five less than twice a number is equal to 9.

c When a number is multiplied by 3, then increased by 7, the result is 43.

d Double a number, then reduce it by 9. The result is 13.

e When a number is multiplied by 5 and this is then subtracted from 60, the result is 20.

a A number is added to 17 and then divided by 4. The result is 7.

b Think of a number. Double it, add 5, then divide by 3. The result is 11.

c A certain number is decreased by 4, doubled, then divided by 5. The result is 6.

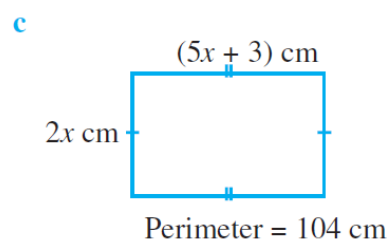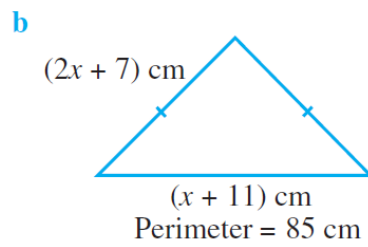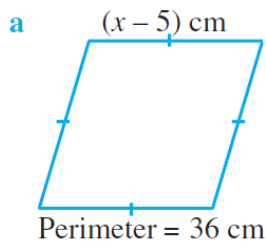**a** The sum of two consecutive numbers is 151. What are the numbers?

b The sum of three consecutive numbers is 54. What are the numbers?

a The sum of three consecutive even numbers is 102. Find the numbers.

b The sum of four consecutive odd numbers is 48. Find the numbers.

c The sum of two consecutive even numbers is equal to 27 more than the odd number that lies between them. Find the even numbers.

8 Form an equation and solve it to find the value of the pronumeral in each of these.

a $(x-5)$ cm

Perimeter = 36 cm

b $(2x+7)$ cm

$(x+11)$ cm

Perimeter = 85 cm

c $(5x+3)$ cm

$2x$ cm

Perimeter = 104 cm

a In a group of 29 men and women, there are 7 more women than men. How many people of each gender are there?

b Annika has $9 less than Kris. If together they have $41, find the amount of money that each girl has.

c The perimeter of a parallelogram is 56 cm and one side is 6 cm shorter than an adjacent side. Find the lengths of the sides.

d The cost of a new tyre is $35 more than the cost of a retread. If the cost of two new tyres and two retreads is $370, find the unit cost of each tyre.

e An isosceles trapezium has two equal sides of length 7 cm. One of the parallel sides is 5 cm longer than the other parallel side. Find the lengths of the parallel sides if the trapezium has a perimeter of 35 cm.

f A 2.5 m length of timber is cut into 3 pieces. One piece is twice the length of the shortest piece and the other is 30 cm longer than the shortest piece. Find, in centimetres, the length of each piece of timber.

g Raymond is half the age of his father. The sum of their ages is 78 years. How old is each person?

a An imported brand of sugar costs 60c more per kilogram than an Australian brand. If 2 kg of imported sugar plus 5 kg of Australian sugar costs $13.80, find the cost per kilogram of the imported sugar.

b Jonathan is twice as old as Darren and Darren is three times as old as Bettina. The sum of their ages is 120 years. Find the age of each person.