Revision 3

- 1 Write each ratio in its simplest form.
 - (a) 3:18 = 1:6
 - (b) 15:5 = **3:1**
 - (c) 48:60 = 4:5
 - (d) 75:100 = **3:4**
 - (e) 243:90 = **27:10**
 - (f) 43:43 = 1:1
- **2** Evaluate the given expression for different values of n.

n	100 – 6 <i>n</i>	
1	94	
2	88	
3	82	
5	70	
11	34	

Term number, k	1	2	3	4
Term, T	4	9	14	19

- Find the value of x in each of the following equations.
 - (a) 9 + x = 14

5

(b)
$$16 - x = 4$$

12

(c)
$$x - 16 = 35$$

(d) 3x = 21

7

51

(e)
$$\frac{80}{x} = 16$$

5

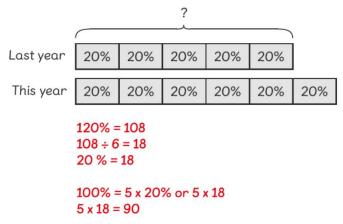
5 A florist has 480 individual flowers. The table shows how many of each type of flower she has.

Types of flowers	Percent
Roses	65%
Lilies	5%
Tulips	30%

- (a) The florist has 312 roses.
- (b) The florist has 144 tulips.
- (c) There are 120 more tulips than lilies.
- (d) The original price of a bouquet of lilies was £32. The florist increased the price by 25%. What is the new price of a bouquet of lilies?

£40

6 A Science Club has 108 members this year after a 20% increase in membership from last year. How many members did the club have last year?

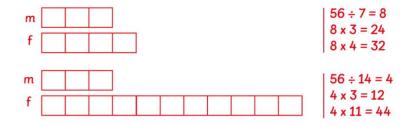


There were 90 members last year.

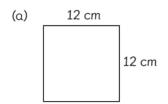
7 The ratio of the number of male to the number of female passengers in a bus was 3: 4. After 12 men got off the bus and 12 women got on, the ratio became 3: 11. How many passengers were on the bus to begin with?

Initially 24: 32 = 3:4 Afterwards 12:44 = 3:11

Total to begin with was 56.

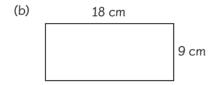


8 Find the area and the perimeter of each figure.



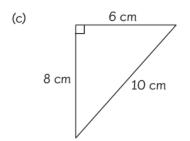
area =
$$144 \text{ cm}^2$$

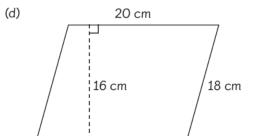
perimeter = 48 cm



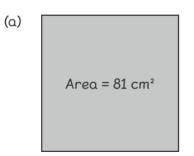
area =
$$162 \text{ cm}^2$$

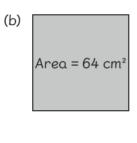
perimeter = 54 cm





9 Find the side length and the perimeter of each square.





8

32

- A rectangle has a perimeter of 68 cm. Its shorter side is 12 cm shorter than its longer side.
 - (a) Find the length of its longer side and the length of its shorter side.

$$68 \div 2 = 34$$

 $34 - 12 = 22$
 $22 \div 2 = 11$ cm (short side)
 $11 + 12 = 23$ cm (long side)

(b) Calculate its area.

$$23 \times 11 = 253$$
 cm²