A | Answer

1 2300 + 970 + 1700 = _____ 4970

2 $\frac{7}{8} \div 7 =$ _____ $\frac{1}{8}$

3 70% of 360° = _____ 252°

4 (15 × 8) ÷ 6 = _____ 20

5 379m + 221m = km _____ 0.6km

6 $\frac{£2.50 \times 12}{6} = £$ _____ £5.00

7 a $\frac{1}{2}l + xml = 615ml$. Find x. a _____ 115ml

   b $\frac{1}{2}l - 368ml = yml$. Find y. b _____ 132ml

8 a 0.3 × 0.2 = a 0.06

   b 0.06 ÷ 0.2 = b 0.3

9 $\frac{1}{4} + \frac{5}{16} =$ _____ $\frac{9}{16}$

10 2.475m ÷ 9 = mm _____ 275mm

11 Subtract 17 from 9. _____ −8

12 24.8 × 1.6 = _____ 39.68
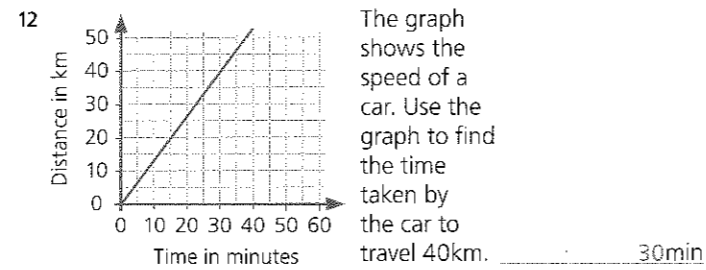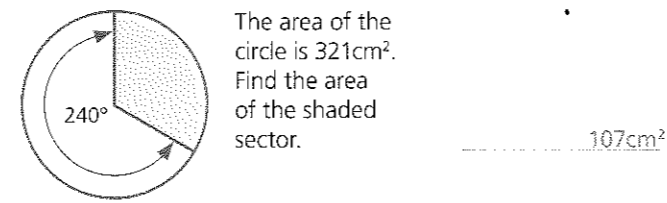
248 × 16 = 3968

B | Answer

1 How many quarters are there in 36? _____ 144

2 Write as a fraction in its simplest form.

   a $\frac{4}{1000}$ b $\frac{45}{1000}$ c $\frac{28}{1000}$ a $\frac{1}{250}$ b $\frac{9}{200}$ c $\frac{7}{250}$

3 1kg costs £4.00. Find the cost of 700g. £2.80

4 Find the product of 20 and 0.005. 0.1

5 How many centimetres remain when 268cm are taken from 3.4m? 72cm

6 Write to the nearest second decimal place.

   a 53.176 a 53.18

   b 24.694 b 24.69

7 Find the mean of 1.1, 2.3 and 0.8. 1.4

8 Share 3kg in the ratio 1:4. 0.6kg 2.4kg

9 Which year is MDCXXXII? 1632

10 Find the area in cm² of a square of side 11cm. 121cm²

11 Which two numbers have a sum of 20 and a product of 36? 2 18

12 Deduct (£1.15 × 3) from (£18 ÷ 5). 15p

C | Answer

1 The approximate population of a city is 1.2 million. The actual population is 1 207 806. Find the difference. 7806

2 Two parcels together have a mass of 18.5kg. One of them is 4kg heavier than the other. Find the mass of each parcel. 7.25kg 11.25kg

3 Which of these shapes will have a circular face when cut horizontally, and a rectangular face when cut vertically? cylinder

sphere cone cylinder

4 In a class of 30 children 12 were absent. Write the number absent as

   a a fraction in its simplest form a $\frac{2}{5}$

   b a ratio. b 2:5

5 A bagel costs 35p. How many can be bought for £7.00? 20
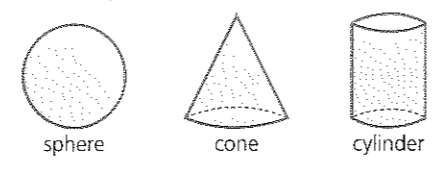
6   VWYZ is a rhombus. WXY is an isosceles triangle. Find

   a ∠ WYZ a 112°

   b ∠ VWY b 68°

   c ∠ ZVW. c 112°

7 Tom has 95p and Sophie has 73p. How much must Tom give to Sophie so that each has the same amount? 11p

8 If 1 July falls on a Thursday how many Saturdays will there be in that month? 5

9 One child in every four in a school of 200 walks to school.

   a What percentage do not walk to school? a 75%

   b How many walk to school? b 50

10 Write the coordinates of the point (3, 5) when reflected in the x-axis. (3, −5)

11   The area of the circle is 321cm². Find the area of the shaded sector. 107cm²

12   The graph shows the speed of a car. Use the graph to find the time taken by the car to travel 40km. 30min

A | Answer

1 £1.20 × $3\frac{1}{2}$ = £4.20

2 $\frac{2.64 + 3.36}{2} =$ 3

3 2.25ml − (250ml × 6) = ml 750ml

4 $\frac{20}{24} \div 25 =$ $\frac{1}{30}$

5 1200km − (320km + 280km + 335km) = 265km

6 a $\frac{1}{8} =$ % a 12.5%

   b $\frac{3}{8} =$ % b 37.5%

7 9.8 ÷ 4 = 2.45

8 £5.00 − £ = £2.82 £2.18

9 £6 × $\frac{2}{5}$ = £2.40

10 9x = 33 + 48. Find the value of x. 9

11 Find the cost of 30cm at £1.80 per metre. 54p

12 $\frac{1}{7}$ of 4kg 60g = g 580g

B | Answer

1 Add $\frac{3}{4}$ of 28 to $\frac{7}{8}$ of 56. 70

2 (4 × 10³) + (2 × 10²) = 4200

3 Increase £3.00 by 7%. £3.21

4 Write $\frac{3}{8}$ as a decimal fraction. 0.375

5 Find the total mass in kilograms of these amounts of water. 6.195kg

2.7l 95ml 3.4l

6 One pear costs 17p. Find the cost of

   a 10 b 1000. a £1.70 b £170

7 A rhombus has an area of 100cm². Its base is 5cm. Find its height in millimetres. 200mm

8 Approximate 4 635 000 to

   a the nearest 1 000 000 a 5 000 000

   b the nearest 100 000. b 4 600 000

9 Write the year 1916 using Roman numerals. MCMXVI

10 Find the difference in hundredths between 100 × 0.016 and 100 × 0.017. 10 hundredths

11 Express 43 ÷ 5 as

   a a mixed number a $8\frac{3}{5}$

   b a decimal. b 8.6

12 Multiply £1.50 by 52. £78.00

C | Answer

1 A cask holds 20.75l of water. The mass of the cask when empty is 850g. Find the mass of the cask when it is full. 21.6kg

2   A is the centre of the circle.

   a Name the triangle ABC by its sides. a isosceles

   b Calculate the angle at B. b 35°

3 Six pairs of socks cost £8.37. Find to the nearest penny the cost of one pair of socks. £1.40

4 There are 4.545l of shampoo in a plastic container. The shampoo lasts for nine weeks. How many millilitres are used on average per week? 505ml

5   There was 87p change from £3 after buying the multipack. Find the cost of each bottle. 71p

820ml 820ml 820ml

6 Find in litres the volume of

   a one multipack a 2.46l

   b eight multipacks. b 19.68l

7 A map is drawn to a scale of 1cm to 1km. How many metres are represented on a map by a line 14mm long? 1400m

8   Find

   a the area of the triangular end of the prism a 12cm²

   b the volume of the prism. b 96cm³

9 A car averaged 8km to a litre of petrol on a four-hour journey of 312km.

   a How many litres were used on the journey? a 39l

   b What was the average speed? b 78km/h

10 The price of a pair of shoes costing £25 increased by £1.25. Write the increase as a percentage. 5%

11   Write the proportion of shaded squares

   a as a fraction in its simplest form a $\frac{3}{10}$

   b as a decimal. b 0.3

12 Matthew arrived at a hotel on 29 October and left on 3 November. The charge for the room was £10.50 per night. What was the total cost of the room? £52.50