





Set A: Test 2

There are **8 questions** in this test. Give yourself **10 minutes** to answer them all.


1. Complete the calculations below.

 $304.5 \div 100 =$

 $3.045 \times$ $= 3045$

1 mark

2. Circle the factors of 52.

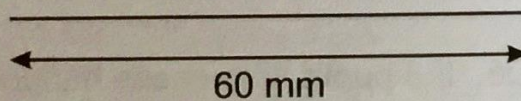
 1 3 13 19

1 mark

3. Rosa is making a patchwork blanket.
Each rectangular patch will measure 60 mm by 40 mm.

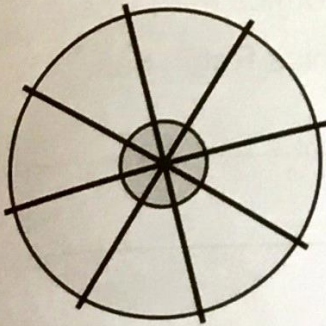
Using a ruler and protractor, draw an accurate 60 mm by 40 mm rectangle.

One side has been drawn for you.



1 mark

4. On a roundabout at a playground there are 8 bars with equal angles between them, as shown below.



What is the size of each angle?



1 mark

5. Ozzy and Ralph played darts. For every 5 points that Ozzy scored, Ralph scored 7. The total number of points scored was 60. How many points did Ralph score?



1 mark


6. Complete this calculation, giving your answer as a mixed number.

$$\frac{3}{8} + \frac{9}{10} =$$




1 mark

7. Ozzy, Rosa and Ralph are comparing their comic collections. The number of comics that Ozzy has is C . Rosa has 4 times as many comics as Ozzy. Ralph has 5 more comics than Rosa. Write an expression that shows how many comics Ralph has.



1 mark

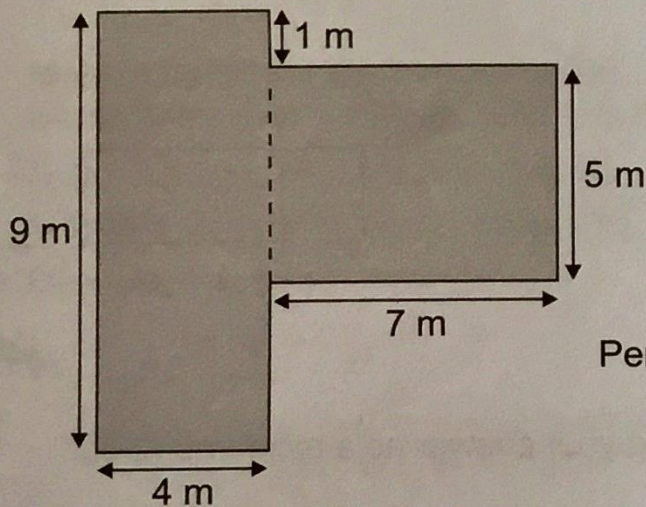
Ozzy has 12 comics. How many comics does Ralph have?




1 mark


8. Ralph is cutting a carpet to fit his hallway. A plan of his hallway is shown below.

Calculate the perimeter and area of his hallway.



 Perimeter: m

1 mark

 Area: m^2

1 mark

END OF TEST

/ 10

?? Bonus Brainteaser

In Q8, Ralph starts with an 8 m by 10 m rectangle of carpet. What is the minimum number of pieces Ralph will need to cut the carpet into to fully cover his hallway floor?

Answers

Set A

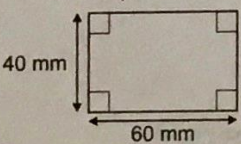
Test 1 – pages 1-3

- 378 746 to the nearest hundred is 378 700
378 746 to the nearest thousand is 379 000
(1 mark for both correct)
- $40 - 6 \times 5 = 10$ (1 mark)
- Area of triangle = $\frac{1}{2} \times 11 \times 8 = 44 \text{ mm}^2$
(1 mark for correct answer)
- $\frac{9}{12}$ and 0.75
(1 mark for both correct)
- 1 pot of jam weighs $120 \div 2 = 60 \text{ g}$
5 pots of jam weigh $60 \times 5 = 300 \text{ g}$
(1 mark for correct answer)
- Add 2.5 each time (1 mark)
12.5, 15, 17.5 (1 mark for all correct)
- $100\% - 45\% = 55\%$
of people not wearing T-shirts
 50% of 480 = $480 \div 2 = 240$
 10% of 480 = 48, 5% of 480 = $48 \div 2 = 24$
 55% of 480 = $50\% + 5\% = 240 + 24 = 264$
(2 marks for correct answer
otherwise 1 mark for correct working)
- The pie chart is split into 10 equal sectors.
There are 40 pupils in the class, so each sector is worth $40 \div 10 = 4$ pupils.
Salmon takes up 3 sectors so $3 \times 4 = 12$ pupils said salmon was their favourite.
(1 mark for correct answer)

BONUS BRAINTEASER

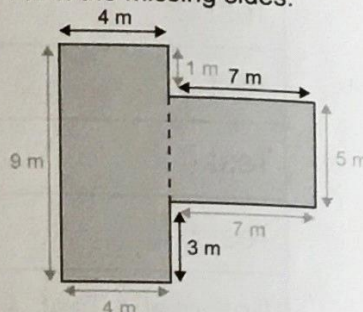
Each sector is worth 4 pupils, so tuna gets bigger by $8 \div 4 = 2$ sectors and takes up $2 + 2 = 4$ sectors.
This is $\frac{4}{10} = 40\%$ of the pie chart.

Test 2 – pages 4-6

- $304.5 \div 100 = 3.045$
 $3.045 \times 1000 = 3045$ (1 mark for both correct)
- 1 and 13 (1 mark for both correct)
- 

(1 mark for an accurately drawn rectangle)
- Angles round a point = 360°
 $360^\circ \div 8 = 45^\circ$ (1 mark for correct answer)

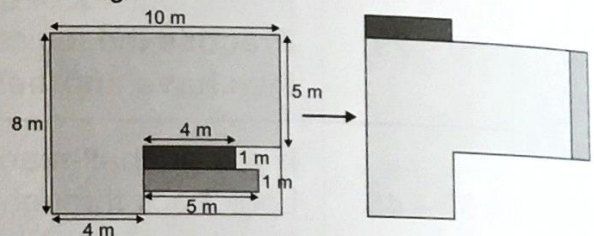
- For every 5 points Ozzy scored, Ralph scored 7. There are $5 + 7 = 12$ shares in total.
 $1 \text{ share} = 60 \div 12 = 5 \text{ points}$
Ralph gets 7 shares = $7 \times 5 = 35 \text{ points}$
(1 mark for correct answer)
- $\frac{3}{8} + \frac{9}{10} = \frac{15}{40} + \frac{36}{40} = \frac{51}{40} = 1\frac{11}{40}$
(1 mark for correct answer)
- $4C + 5$ (1 mark)
 $4 \times 12 + 5 = 48 + 5 = 53$
(1 mark for correct answer)
- Fill in the missing sides:



Perimeter = $9 + 4 + 1 + 7 + 5 + 7 + 3 + 4 = 40 \text{ m}$
(1 mark for correct answer)
Area = $(9 \times 4) + (7 \times 5) = 36 + 35 = 71 \text{ m}^2$
(1 mark for correct answer)

BONUS BRAINTEASER

He would need to cut the carpet into at least 3 pieces. E.g. If he cut the carpet up as shown on the left and repositioned the pieces as shown on the right:



Test 3 – pages 7-9

- 16.245 ~~—————~~ 16.3
 16.31 ~~—————~~ 16.2
 15.88 ————— 15.9
 (1 mark for all lines correct)
- $500 \times 9 = 4500 \text{ m}$ and $4500 \div 1000 = 4.5 \text{ km}$
(1 mark for correct answer)
- 21 and 42
(1 mark for both correct)