

Set A: Test 3



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

1. Join the numbers on the left to their value when rounded to **1 decimal place**.



16.245

16.3

16.31

16.2

15.88

15.9

 1 mark

2. Rosa goes karting with friends. The karting track is 500 m long. If she goes around the track nine times, how many **kilometres** will she have travelled?



_____ km

 1 mark

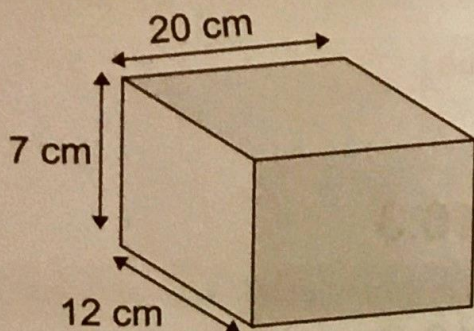
3. Write down the two common multiples of 3 and 7 that are less than 50.




and

 1 mark

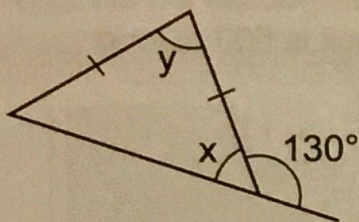
4. Rosa is posting a box. It costs £3.00 to post a box with a volume greater than 1500 cm^3 , otherwise it costs £2.00.
How much would it cost Rosa to post the box below?







1 mark

5. Work out the size of angles x and y in the isosceles triangle below.




 $x =$

 $y =$

1 mark

1 mark

6. Fill in the missing number to make this fraction calculation correct.

 $\frac{\quad}{3} \times \frac{1}{10} = \frac{2}{15}$

1 mark

7. On a map 3 cm represents 75 m in real life. The distance between a hotel and the train station is 11 cm on the map.

What is the real life distance from the hotel to the train station?



1 mark

8. In 2002, Ralph bought a rare video game for £40. This year, he sold the video game for 75% more than he paid for it.

How much did he sell the video game for?



1 mark

Another video game that Ralph bought in 2002 for £22 is now only worth 52% of its original value.

How much is this game worth now?



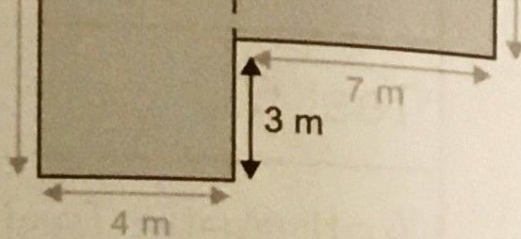
1 mark

END OF TEST

/ 10

?? Bonus Brainteaser

Rosa collects trading cards. 1 in 12 of her cards is a rare card. She gives away 2 rare cards and has 250 cards left. How many rare cards does she have left?

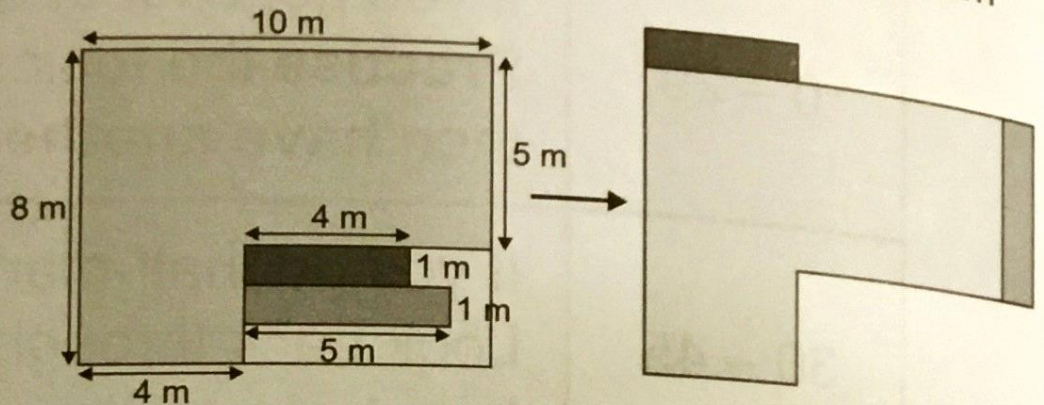


Perimeter = $9 + 4 + 1 + 7 + 5 + 7 + 3 + 4 = 40 \text{ m}$
(1 mark for correct answer)

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

1. 16.245 ~~_____~~ 16.3
 16.31 ~~_____~~ 16.2
 15.88 _____ 15.9

(1 mark for all lines correct)

2. $500 \times 9 = 4500 \text{ m}$ and $4500 \div 1000 = 4.5 \text{ km}$

(1 mark for correct answer)

3. 21 and 42

(1 mark for both correct)

4. Volume = $L \times W \times H = 12 \times 20 \times 7 = 1680 \text{ cm}^3$.
 1680 cm^3 is greater than 1500 cm^3 so it would cost £3.00 to post the box.
(1 mark for correct answer)
5. Angles on a straight line add up to 180° .
 So $x = 180^\circ - 130^\circ = 50^\circ$
(1 mark for correct answer)
 Angles in a triangle add up to 180° and it is an isosceles triangle so there are two 50° angles.
 So $y = 180^\circ - 50^\circ - 50^\circ = 80^\circ$
(1 mark for correct answer)
6. $\frac{4}{3} \times \frac{1}{10} = \frac{4}{30} = \frac{2}{15}$ **(1 mark)**
7. $3 \text{ cm} = 75 \text{ m}$, so $1 \text{ cm} = 75 \div 3 = 25 \text{ m}$
 $11 \text{ cm} = 11 \times 25 = 275 \text{ m}$
(1 mark for correct answer)
8. $25\% \text{ of } £40 = 40 \div 4 = £10$
 $75\% \text{ of } £40 = 10 \times 3 = £30$
 So he sold the game for $£40 + £30 = £70$
(1 mark for correct answer)
 $50\% \text{ of } £22 = 22 \div 2 = £11$
 $1\% \text{ of } £22 = 22 \div 100 = £0.22$
 $52\% \text{ of } £22 = 11 + 0.22 + 0.22 = £11.44$
(1 mark for correct answer)

BONUS BRAINTEASER

She had $250 + 2 = 252$ cards in total.

1 in 12 are rare cards, so do $252 \div 12$.

$$\begin{array}{r} 21 \\ 12 \overline{) 252} \\ \underline{24} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

She had 21 rare cards but she gave 2 away so she now has $21 - 2 = 19$ rare cards.