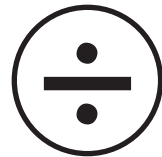
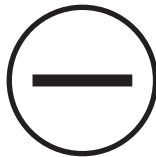


Key Stage 2

Mathematics

Reasoning: Pack 3 Test 3a

Name	
Date	



35

total marks

Name:

Date:

Key Stage 2 Maths Reasoning: Pack 3 Test 3a



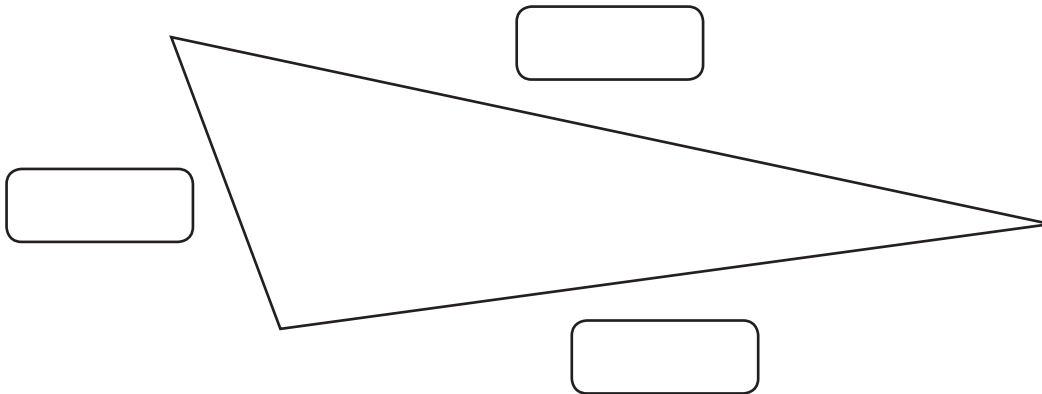
1. Complete the following to show equivalent fractions.

$$\frac{3}{4} = \frac{\quad}{12}$$

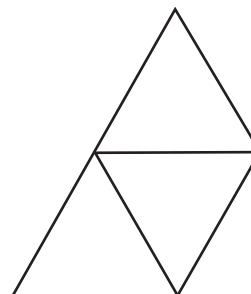
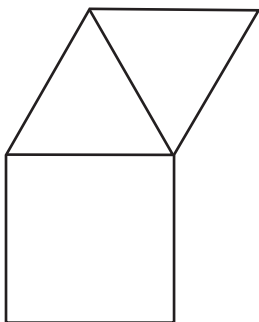
$$\frac{5}{6} = \frac{15}{\quad}$$

2. Here is a triangle.

Measure the length of each side.



3. Complete each net to make a square based pyramid.



1 mark

2 marks

2 marks

Total for this page

4. Order the following fractions from smallest to largest

$$\frac{6}{5}$$

$$\frac{9}{8}$$

$$\frac{14}{12}$$

$$1\frac{1}{4}$$

--	--	--	--

smallest largest



5. Complete the following subtraction calculation.

$$\begin{array}{r} 5 \square 0 \square \\ - 4 \square 7 \\ \hline \square 6 4 6 \end{array}$$



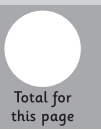
6. Here is a number:

3 709 276

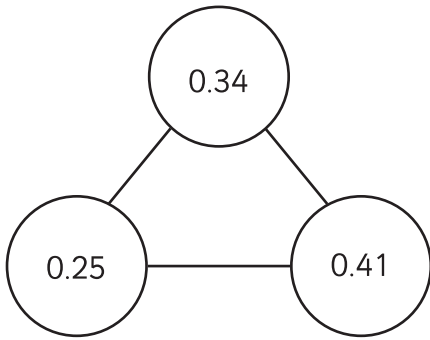
Write down the values of the digit 7 as it is used in this number.



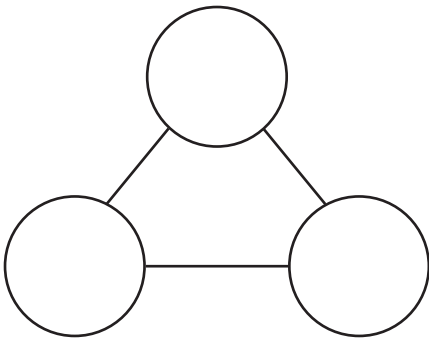
7. Write the number 2 803 in Roman numerals.



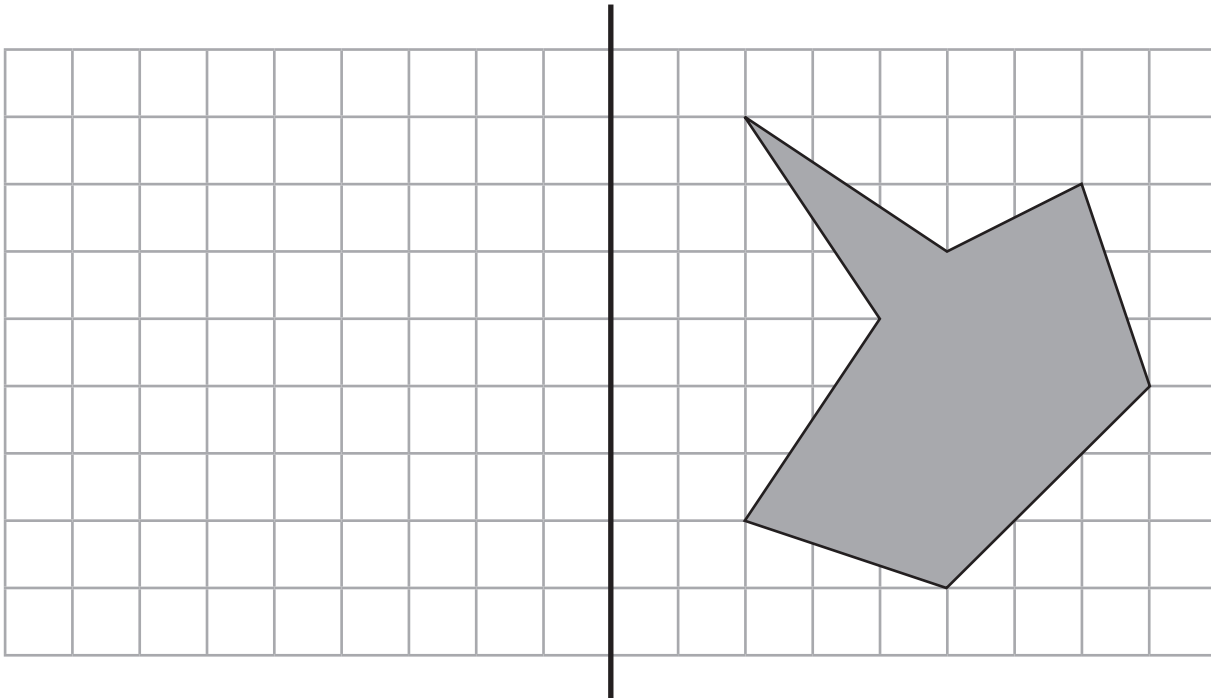
13. The decimal numbers in these 3 circles total 1.



Write 3 other decimal numbers with 2 decimal places that total 1.



14. This shape is reflected about the horizontal line. Draw the new shape.



1 mark

1 mark

Total for this page

15. Janek leaves for school at 8.25am and returns at 3.35pm.

His walk to and from school takes 20 minutes each way.

How long does he spend at school each day?



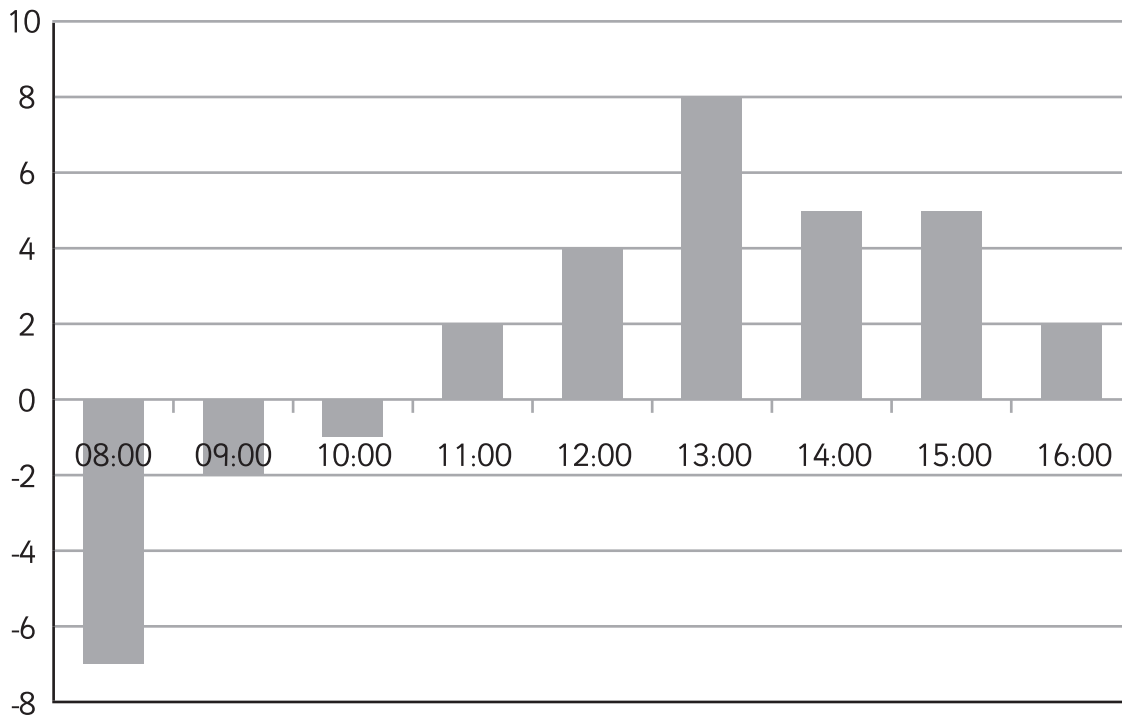
2 marks



Total for this page

16. A class record the temperature in the school playground every hour during a winter's day.

This bar chart shows the recorded temperatures.



a) What is the difference between the highest and lowest temperatures measured?



1 mark

b) How many measurements are below 3°C?



1 mark

c) When is the largest change in temperature between measurements?

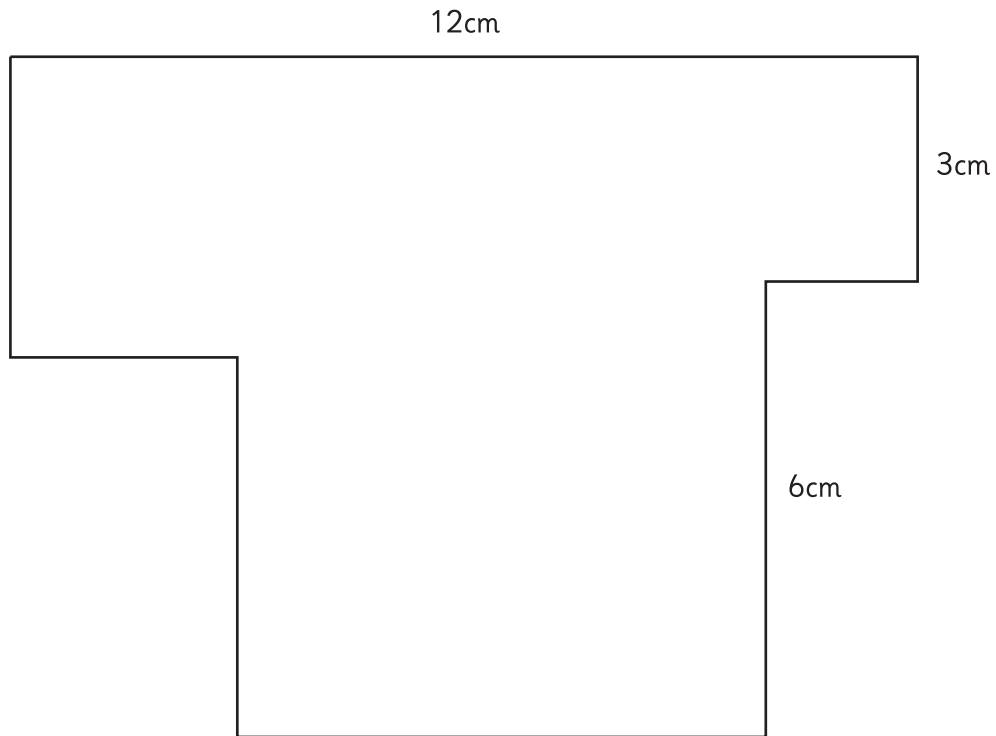
 to 

1 mark

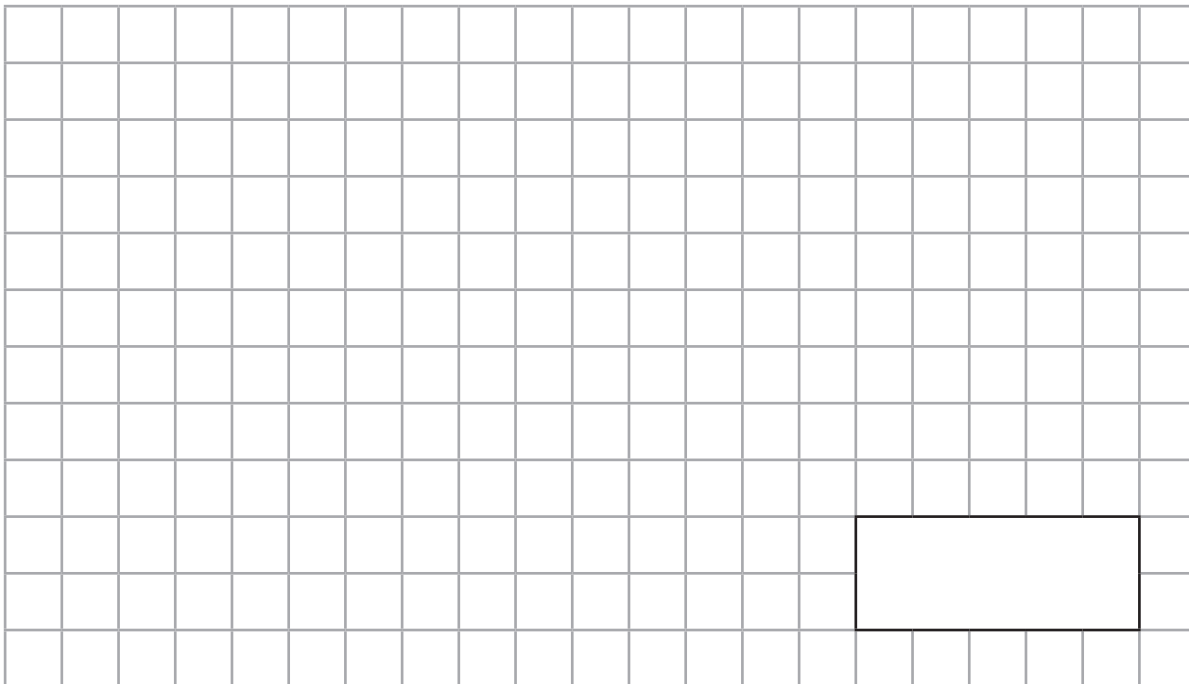


Total for this page

17. Here is a rectilinear shape.



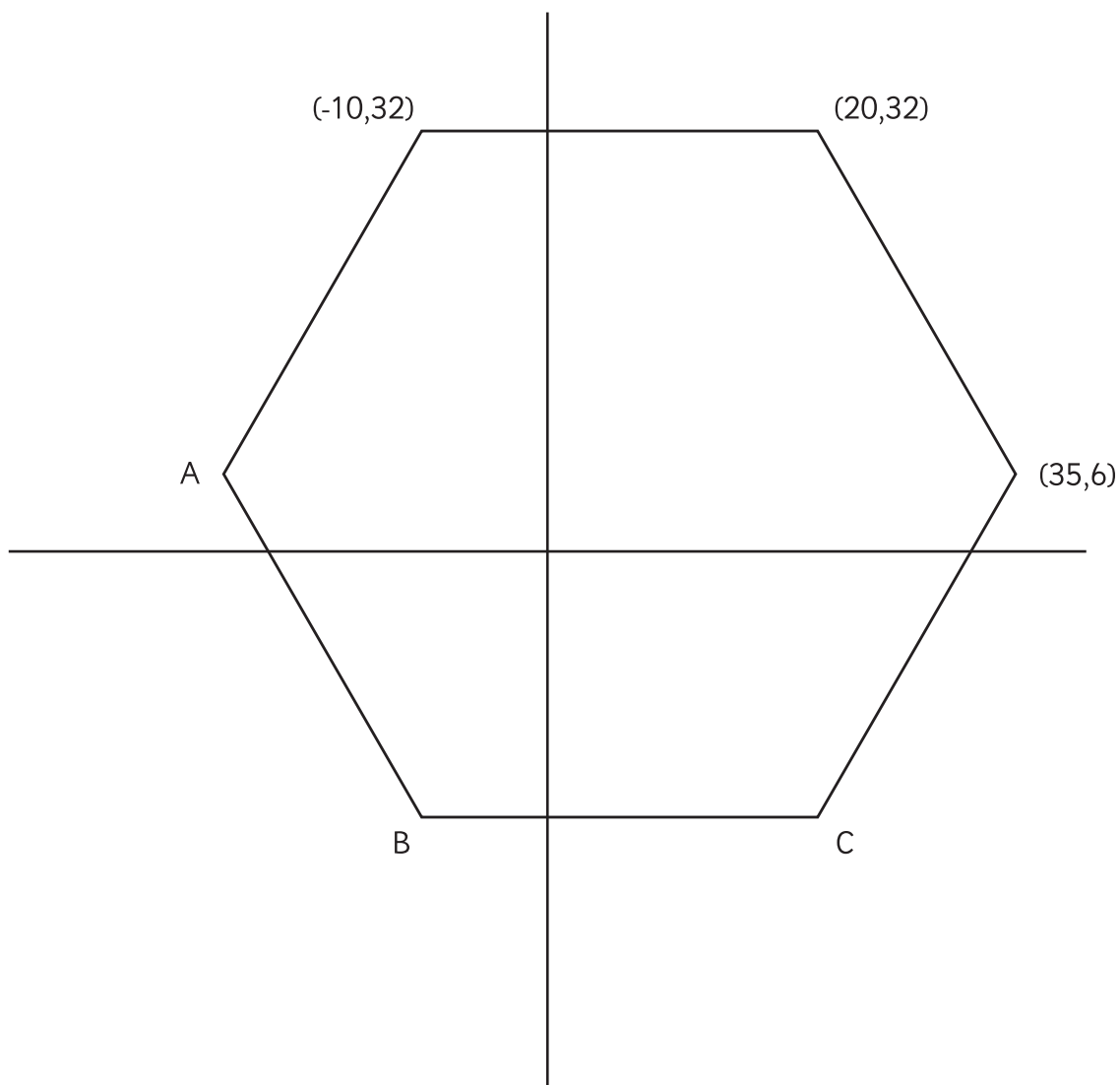
What is the perimeter of the shape?



2 marks

Total for this page

19. A regular hexagon is drawn on this coordinates grid.



Calculate the coordinates of the corners A, B and C of the regular hexagon.

A =

B =

C =

2 marks

Total for this page

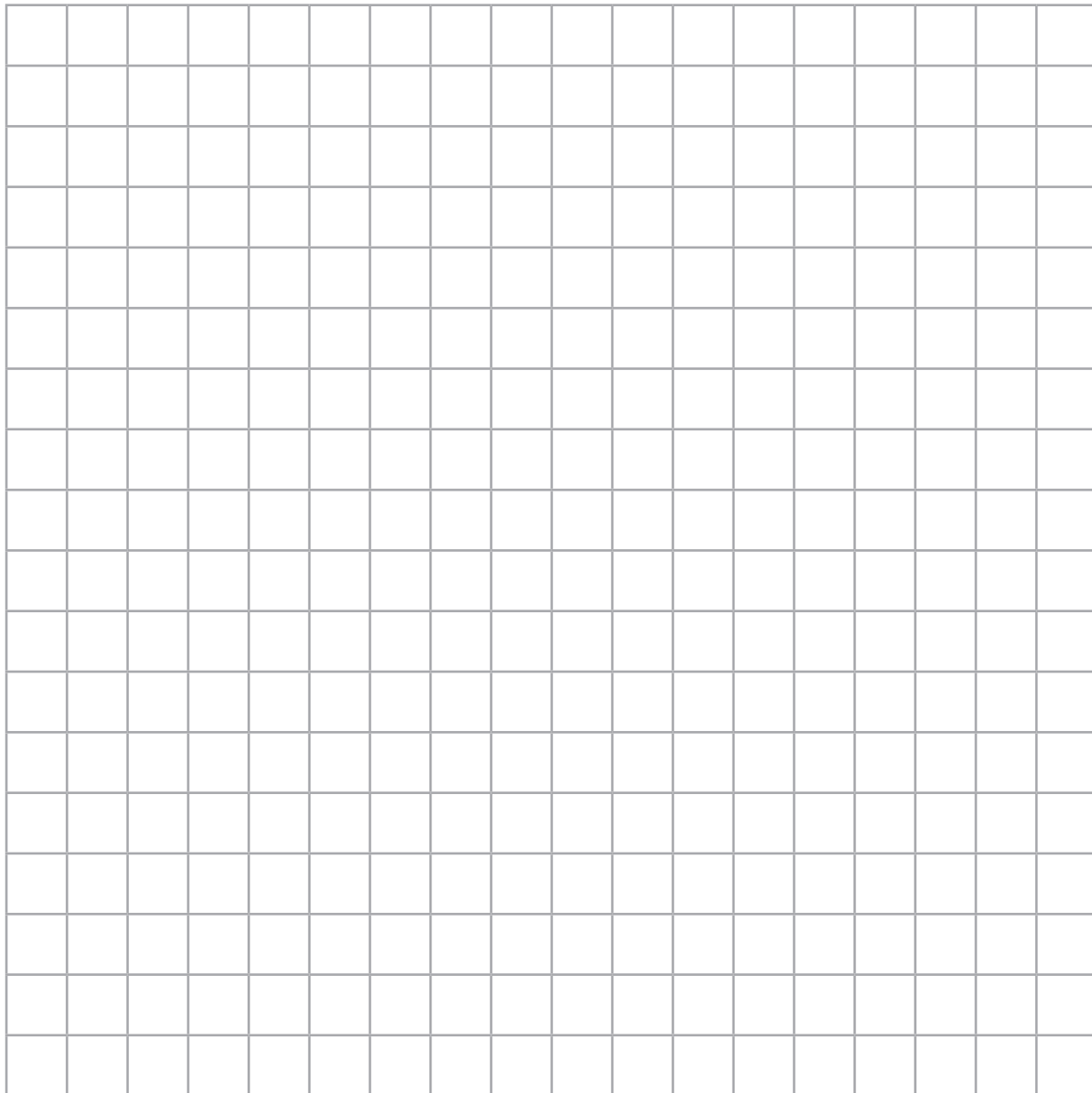
20. A class want to record the length of a shadow throughout the school day.

They place a rounders pole in the playground and measure the length of the shadow on the hour, every hour during the school day.

They record the information in a table.

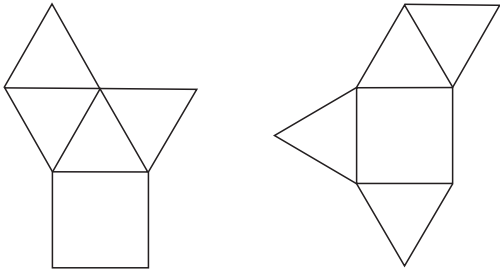
Time	09:00	10:00	11:00	12:00	13:00	14:00	15:00
Length of shadow (cm)	1.57	1.22	0.97	0.84	0.98	1.24	1.61

Using the grid below, draw a line graph that shows the results from the table.



2 marks

Total for this page

question	answer	marks	notes
1.			
	$\frac{9}{12}$ and $\frac{15}{18}$	1	1 mark for both correct.
2.			
	3.8cm, 10.3cm, 8.6cm or 38mm, 103mm, 86mm	2	2 marks for all correct with appropriate use of unit. 1 mark if missing units but appropriate numbers. 1 mark for 2 correct with units.
3.			
	Possible answers: 	2	1 mark for each correct answer, allowing any correct response for each net.
4.			
	$\frac{9}{8}$, $\frac{14}{12}$, $\frac{6}{5}$, $1\frac{1}{4}$	1	
5.			
	$\begin{array}{r} 5103 \\ -457 \\ \hline 4646 \end{array}$	1	
6.			
	700 000 and 70 or seven hundred thousand and seventy	1	1 mark for both. Allow a combination of words and numbers as long as answer is correct.
7.			
	MMDCCCIII	1	
8.			
a	3.445g	1	
b	3.4g	1	1 mark for a correct rounding of an incorrect answer to Q8a.

question	answer	marks	notes
9.			
	0.25l or 250ml	2	2 marks for correct answer with units. 1 mark for correct answer without units and evidence of correct calculation to derive answer.
10.			
a	60	1	
b	14 (37 - 23)	1	
11.			
	72	1	
12.			
a	240 sharpeners	2	2 marks for correct answer. 1 mark for multiplying $6 \times 8 \times 5$ with 1 error in calculation.
b	7p (6.75p) or £0.07	2	2 marks for correct answer, with correct units. 1 mark for dividing £2.70 by 40, but getting an incorrect answer which is rounded correctly, or for getting 6.75p but incorrectly rounding to 7p or writing the correct answer with no units (7 or 0.07).
13.			
	Any 3 decimal numbers with 2 decimal places that total 1.	1	Do not give credit for using 0 in the hundredths place. e.g. $0.40 + 0.25 + 0.35$ is not allowed.
14.			
		1	1 mark for correct answer.

question	answer	marks	notes
15.			
	6.5 hours	2	2 marks for correct answer, written in any appropriate form (e.g 6 hours 30 minutes, 390 minutes). 1 mark for correct method with only 1 error in calculating.
16.			
a	15°C	1	
b	5	1	
c	08:00 to 09:00	1	
17.			
	42cm	2	2 marks for correct answer. 1 mark for evidence of correctly identifying the unknown sides (horizontal add up to 12cm and vertical add up to 9cm).
18.			
	£760	2	2 marks for correct answer with units. 1 mark for correct answer but no units written. 1 mark for incorrect answer but correct calculation with 1 error.
19.			
	A (-25,6) B (-10, -20) C (20,-20)	2	2 marks for all 3 correct. 1 mark for 2 correct.

question	answer	marks	notes
20.			
		2	<p>1 mark for appropriate scale – (either starting at 0 or below 0.84)</p> <p>1 mark for accurately marking all 7 points and drawing a line through the points (allow a reasonable margin of error for each point and the line).</p>
		Total 35	