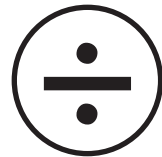
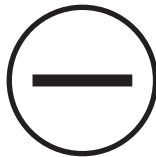


Key Stage 2

Mathematics

Reasoning: Pack 2 Test 2a

Name	
Date	



35

total marks

Name:

Date:



Key Stage 2 Maths Reasoning: Pack 2 Test 2a

1) Continue these sequences:

210	280	350			
-----	-----	-----	--	--	--

6.3	7.2	8.1			
-----	-----	-----	--	--	--

○
2 marks

2)

a) List all the prime numbers between 30 and 60:

○
1 mark

b) Write all the prime factors of 20:

○
1 mark

3) What can be added to 0.981 to make 1?

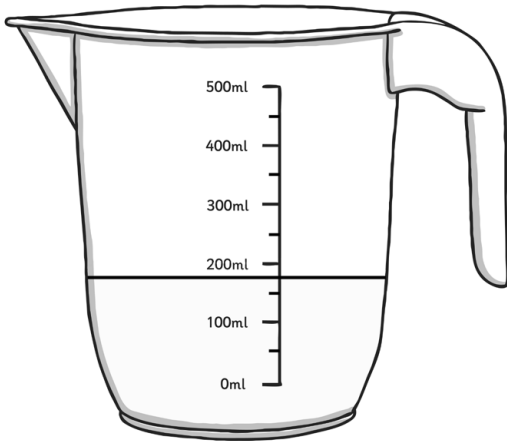
Answer:

○
1 mark

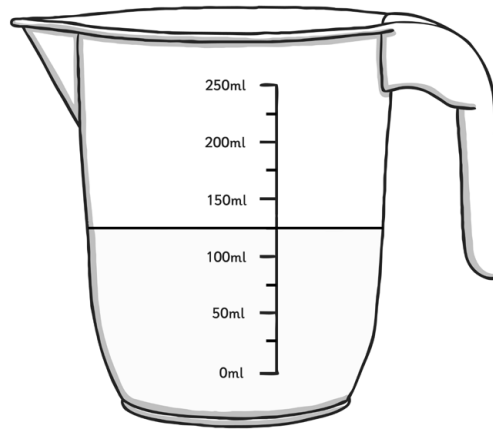
○
Total for this page

4)

a) How much liquid is there in each jug?



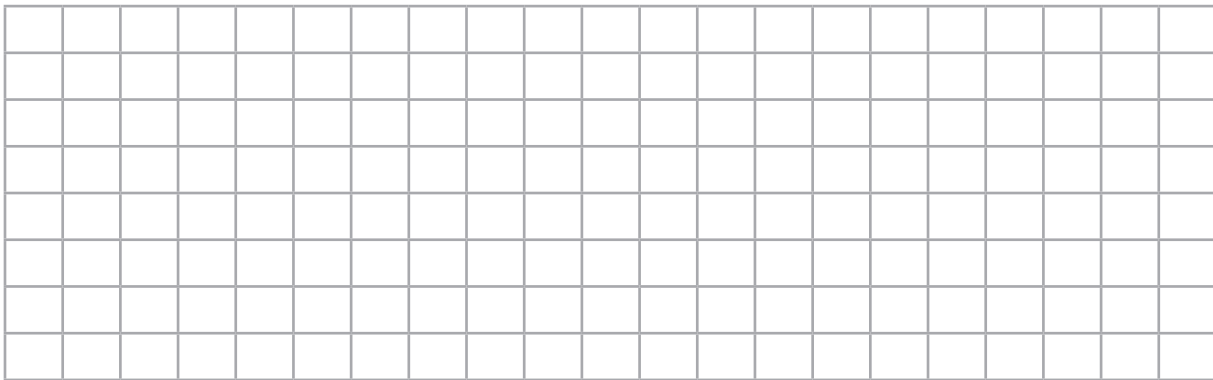
Answer:



Answer:

1 mark

b) Calculate how much more liquid is in one jug than the other:



Answer:

1 mark

5) Write the number 117 906 in words:

1 mark

6) What number do these Roman numerals represent?

DCCLXIX	Answer:
---------	---------

1 mark

Total for this page

7) Which digit represents the number of thousands in the following number?

468 327	Answer:
---------	---------

1 mark

8) Explain why $0.64 \times 1000 = 640$:

1 mark

9) Complete these equations using the following symbols:

	< or > or =	
$\frac{3}{4}$		$\frac{9}{12}$
$\frac{3}{5}$		$\frac{13}{20}$
$\frac{1}{3}$		$\frac{2}{9}$

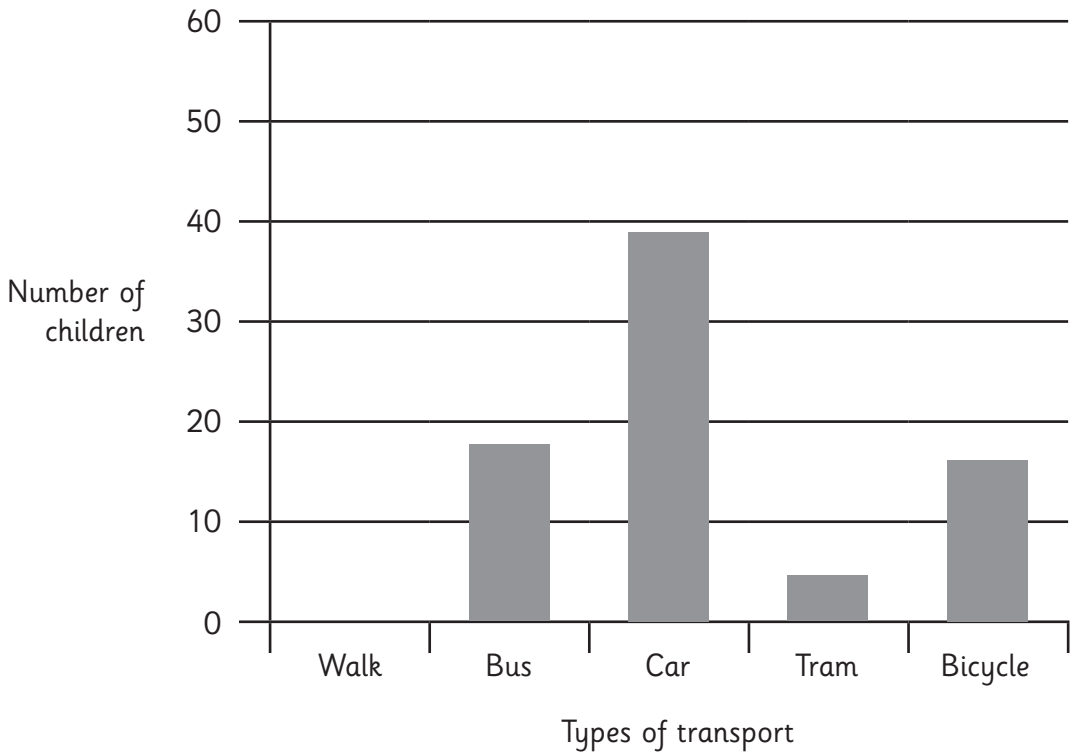
1 mark

Total for this page

10) Some children researched the different ways a group of children travelled to school on one day. Here is a table and bar chart showing the results:

Transport	Tally	Total
Walk		57
Bus		18
Car		
Tram		4
Bicycle		16

Number of Children



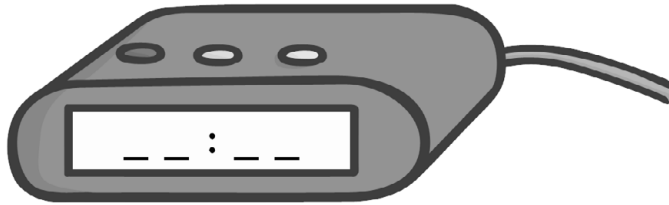
Complete the tally chart and bar graph to show the results.

2 marks

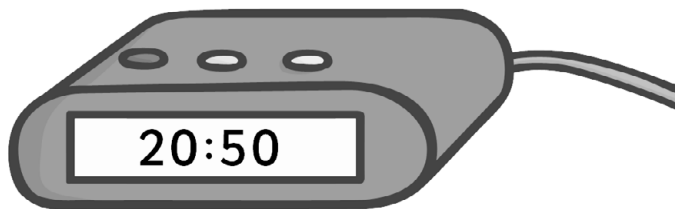
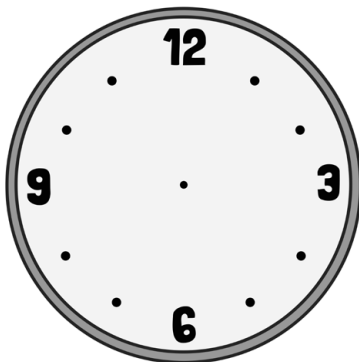
Total for this page

11) Use the clocks below to show the time.

a) Write the time on the analogue clock onto the digital clock:



b) Draw the time on the digital clock onto the analogue clock face:



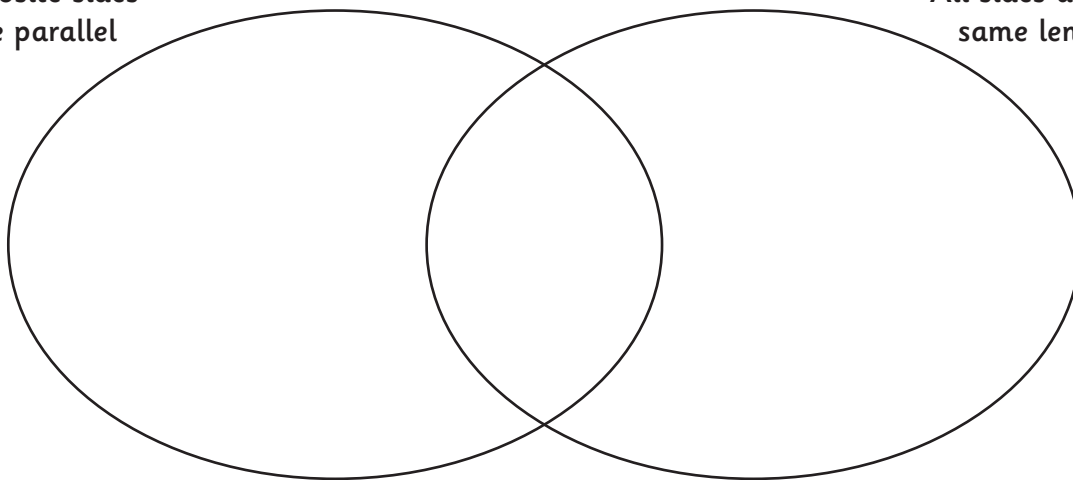
12) Here is a set of quadrilaterals:

Rhombus	Trapezium	Rectangle	Parallelogram	Square
---------	-----------	-----------	---------------	--------

Write the name of each shape in the correct space of this Venn diagram:

Opposite sides
are parallel

All sides are the
same length



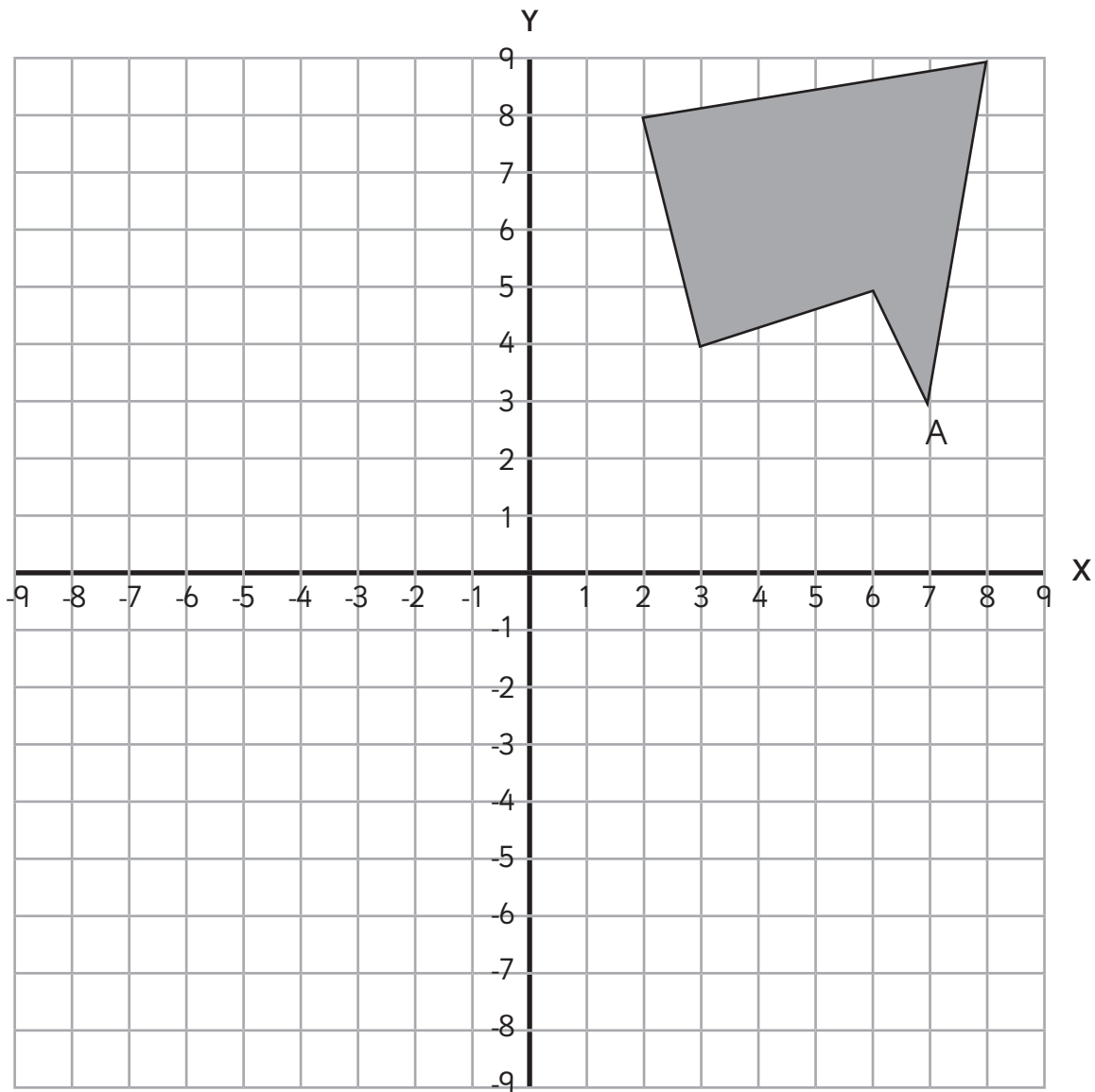
1 mark

1 mark

2 marks

Total for
this page

13) Here is a shape drawn on a coordinate grid:



a) Reflect the shape across the Y axis and then reflect the new shape across the X axis, drawing the two new shapes.

b) Write the coordinates of point A on the new shapes:

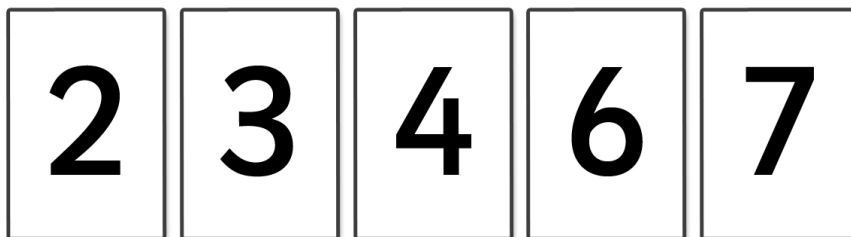
Y:	X:
----	----

2 marks

2 marks

Total for this page

15) Here are some digit cards.



Use each of these digit cards once to complete this long multiplication calculation:

$$\begin{array}{r} \square \square \square \\ \square \square \\ \hline 2 \quad 0 \quad 8 \quad 2 \\ 6 \quad 9 \quad 4 \quad 0 \\ \hline 9 \quad 0 \quad 2 \quad 2 \end{array}$$

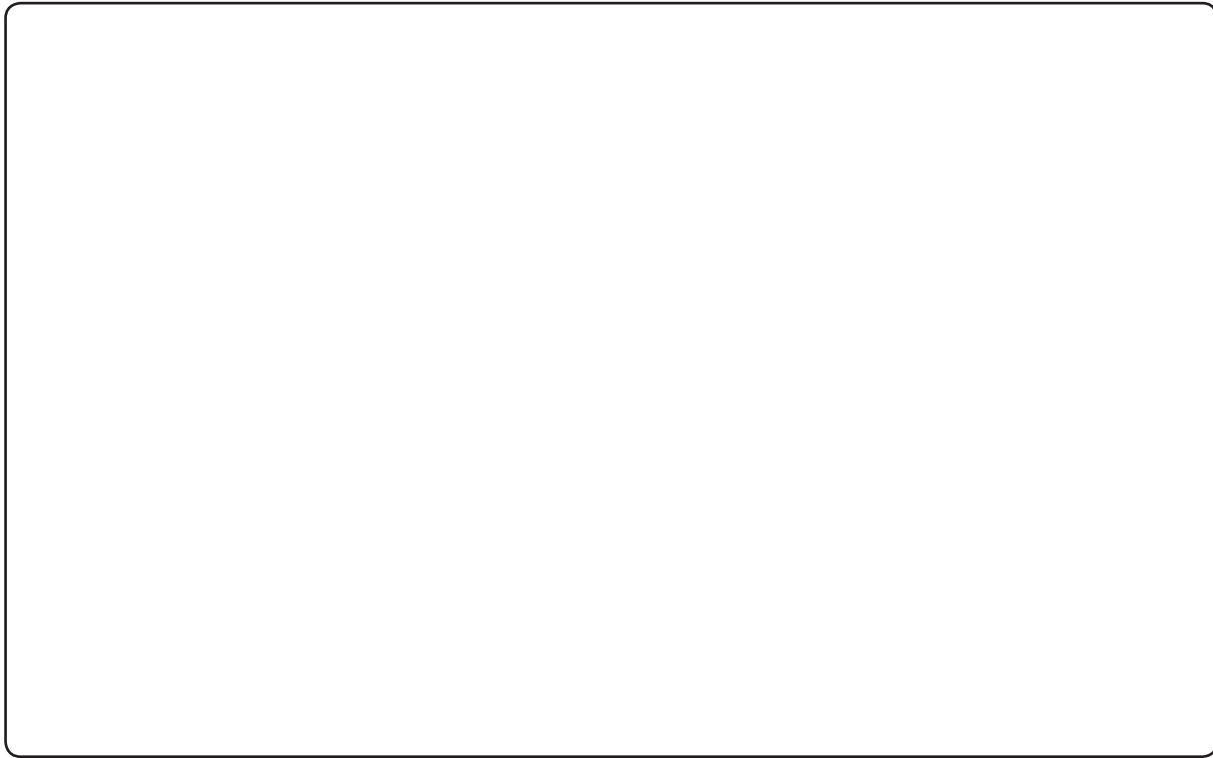
Use the space below to show your working. You may get marks for your ideas:



2 marks

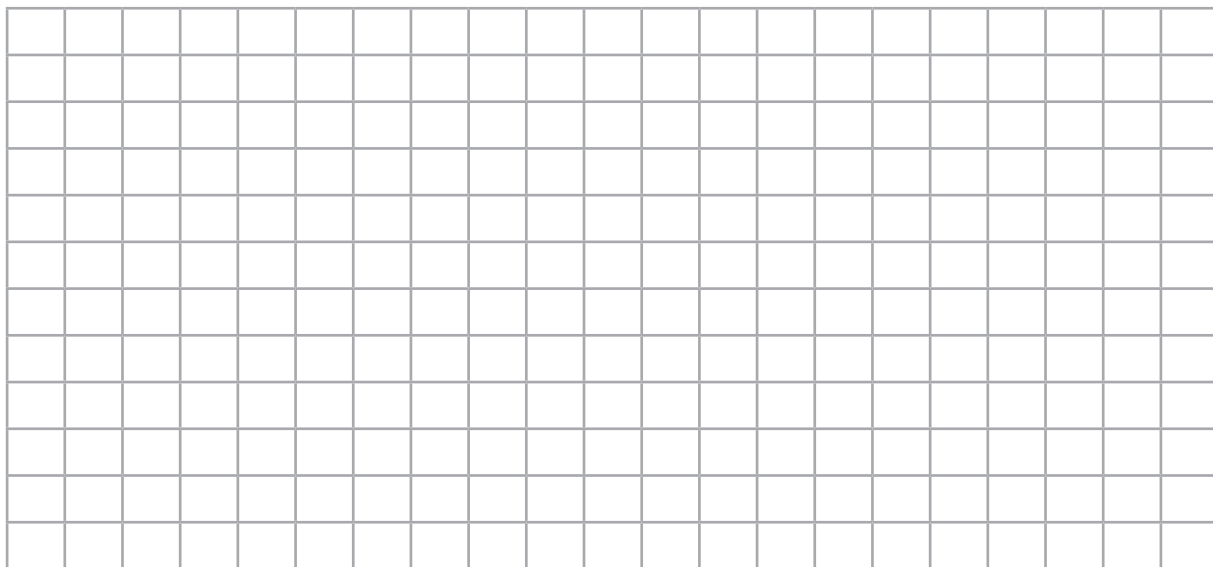
Total for this page

16) Draw an isosceles triangle with 2 sides of length 65mm where the angle between these 2 equal sides is 52° :



2 marks

17) Thomas, Janaid and Sara received a total of £75 for their hard work. Thomas received £8 less than Sara but £5 more than Janaid. How much did they each receive?



Answer:

2 marks

Total for this page

18)

a) For the equation $6a - 2b = 24$, calculate possible values for a and b :

a =	b =
-----	-----



1 mark

b) For the equation $\frac{(5+m)}{n} = 5$, calculate possible values for m and n :

m =	n =
-----	-----



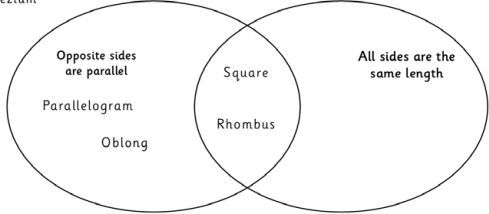
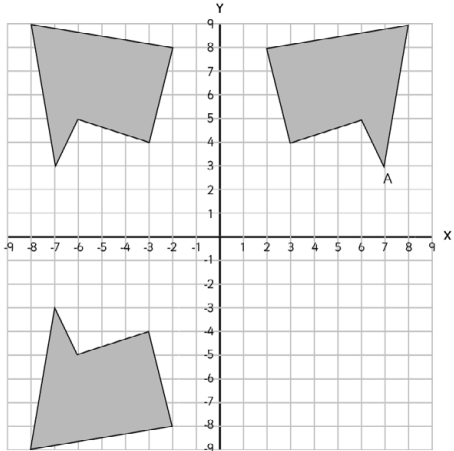


1 mark



Total for
this page

question	answer	marks	notes
1.			
	420, 490, 560	1	1 mark for all numbers correct. Allow 9.0. 1 mark for all numbers correct.
	9, 9.9, 10.8	1	
2.			
a	31, 37, 41, 43, 47, 53, 59	1	1 mark for all.
b	2 and 5	1	1 mark for both (allow 2, 2, and 5 as $2 \times 2 \times 5 = 20$).
3.			
	0.019	1	
4.			
a	175ml, 125ml	1	
b	50ml	1	
5.			
	One hundred and seventeen thousand, nine hundred and six	1	
6.			
	769	1	
7.			
	8	1	
8.			
	$0.6 \times 1000 = 600$ $0.04 \times 1000 = 40$ $600 + 40 = 640$	1	1 mark for any reasonable explanation.
9.			
	$\frac{3}{4} = \frac{9}{12}$ $\frac{3}{5} < \frac{13}{20}$ $\frac{1}{3} > \frac{2}{9}$	1	1 mark for all correct.

question	answer	marks	notes
10.			
	Tally showing 39  Bar showing 57	2	1 mark for correct tally and total, and 1 mark for correct bar in graph/ chart. Allow 38 with tally for 38. Allow an answer clearly more than half way between 50 and not too close to 60 (e.g 56 – 58).
11.			
a	04:25	1	Allow 16:25
b		1	Ensure hands are clearly different size.
12.			
	Trapezium 	2	2 marks for all correct. 1 mark for 3 or 4 correct.
13.			
a		2	2 marks for shape correctly reflected twice. 1 mark for 1 correct reflection, including 1 mark for correctly reflecting an incorrect first reflection.
b	(-7, 2) and (-7, -2)	2	2 marks for correctly writing the coordinates of the shapes drawn in 13a (in any order). 1 mark for 1 correct answer.

question	answer	marks	notes
14.			
a	6 hours and 15 minutes	1	
b	28.5 hours	2	2 marks for correct answer. Allow 28 hours and 30 minutes or 28 1/2 hours 1 mark for correct calculation with only 1 error. Either $(45 \times 38) / 60$ or 38×0.75 .
15.			
	347×26	2	2 marks for the correct answer. 1 mark for evidence of some systematic working: e.g. that the units must be 2×6 or 3×4 or 6×7 to produce a 2 in the units.
16.			
	(See end of answers for a scaled version of the isosceles triangle)	2	2 marks for drawing showing no more than 5mm error at 2 corners. 1 mark for drawing within 10mm at 2 corners.
17.			
	Thomas £24 Janaid £19 Sara £32	2	2 marks for correct answer. 1 mark for correct method, but one error in calculation.
18.			
a	Any correct combination e.g. $a=5, b=3$	1	1 mark for any correct answer.
b	Any correct combination e.g. $m=5, n=2$	1	1 mark for any correct answer.
19.			
	£58 $75 \div 1.3 = 57.69$	2	2 marks for the correct answer. 1 mark for correct calculation (57.69) but incorrectly rounded.
		Total 35	

To scale isosceles triangle (2 sides 65mm,
angle between = 52°)

