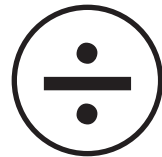
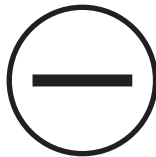


# Key Stage 2

# Mathematics

## Reasoning: Pack 3 Test 3a

Name	
Date	



35

total marks

Name:

Date:

## Key Stage 2 Maths Reasoning: Pack 3 Test 3a



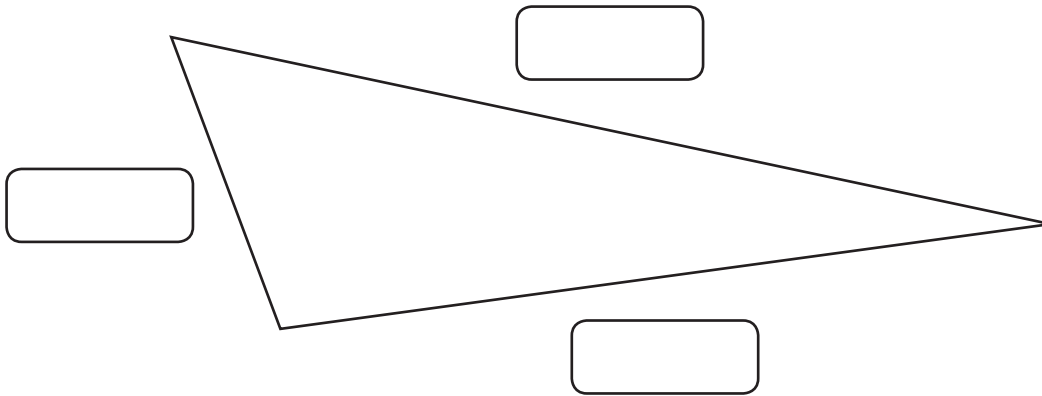
1. Complete the following to show an equivalent fraction.

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

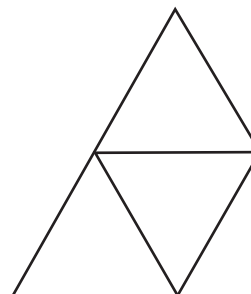
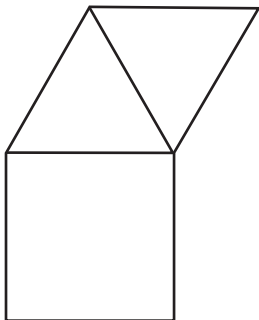
$$\frac{5}{6} = \frac{15}{\quad}$$

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 the smallest to the largest.

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

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

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

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

--	--	--	--

smallest

largest



1 mark

5. Complete the following subtraction calculation.

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



1 mark

6. Here is a number:

3 709 276

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



1 mark

7. Write the number 2 803 in Roman numerals.



1 mark



Total for this page





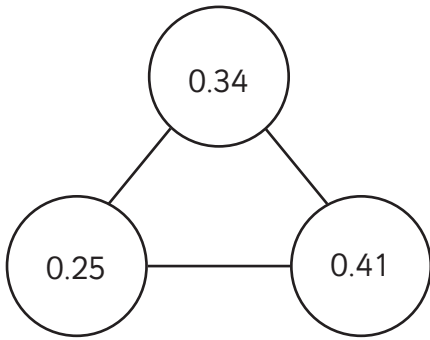




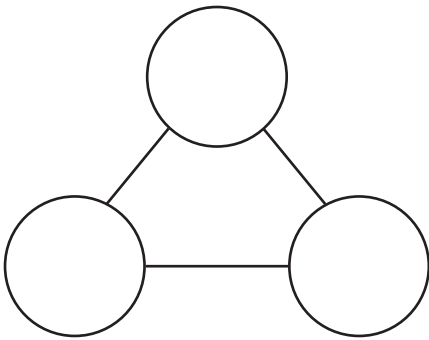




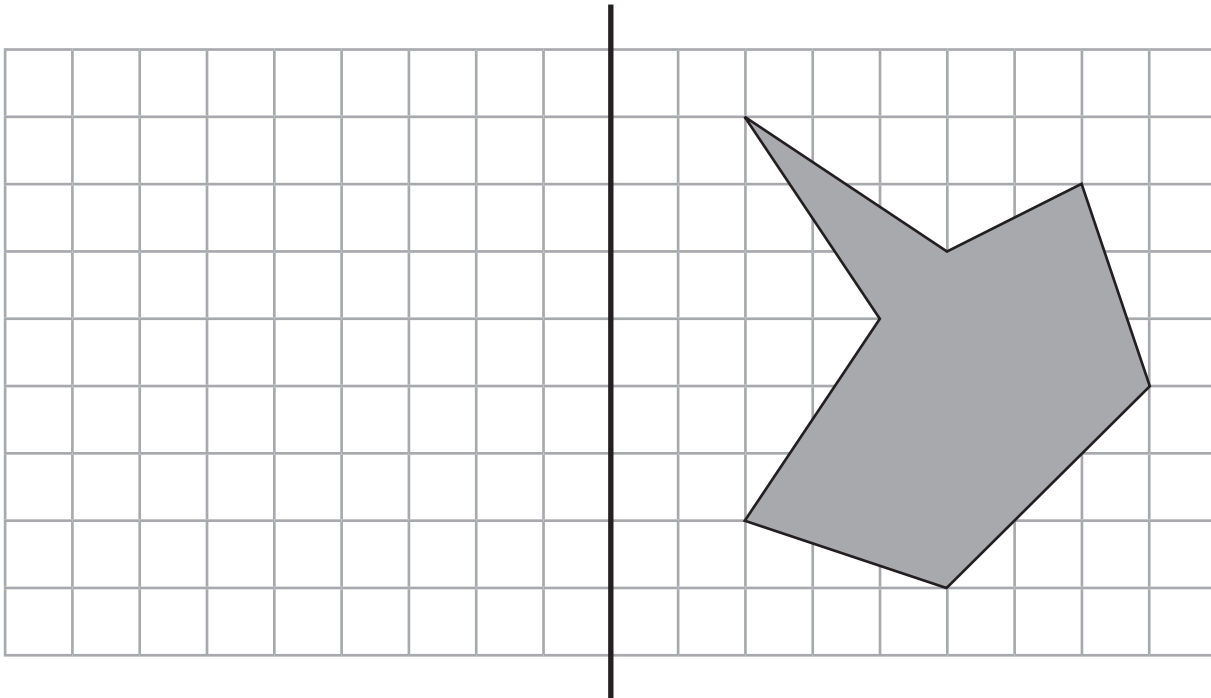
13. The decimal numbers in these 3 circles total 1.



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



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



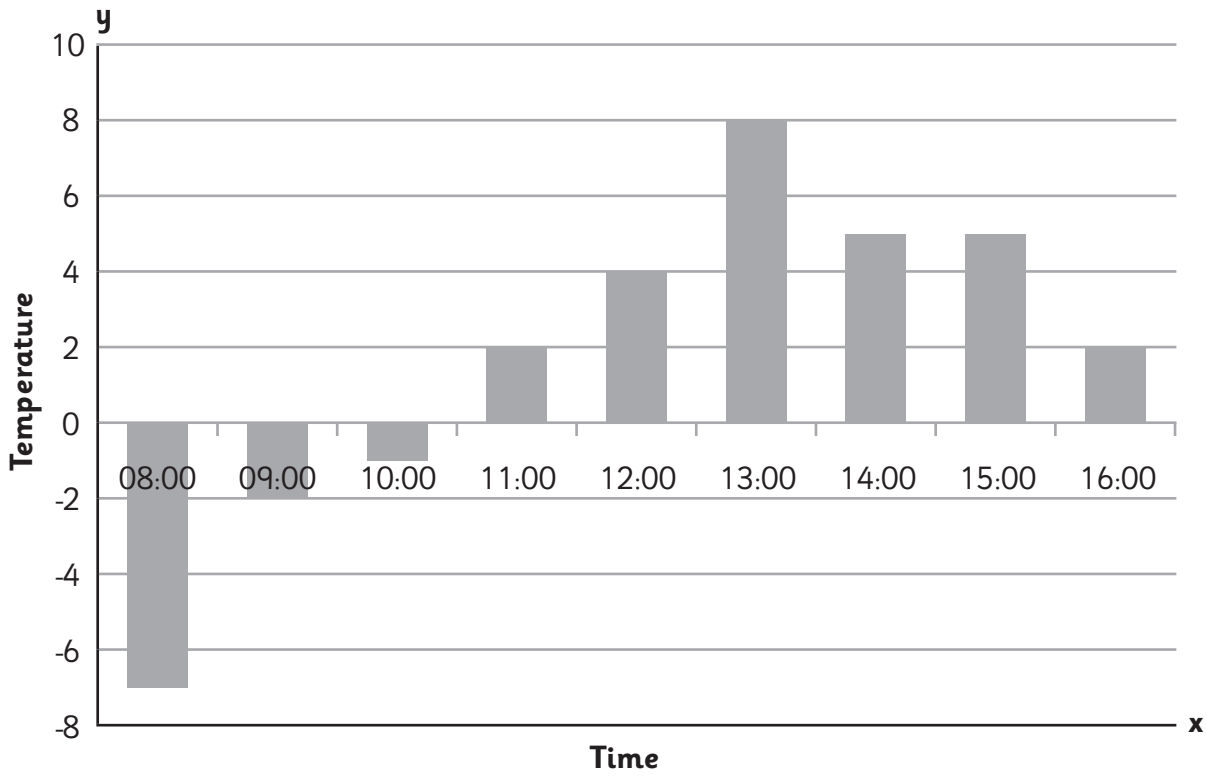
1 mark

1 mark

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?



b) How many measurements are below 3°C?



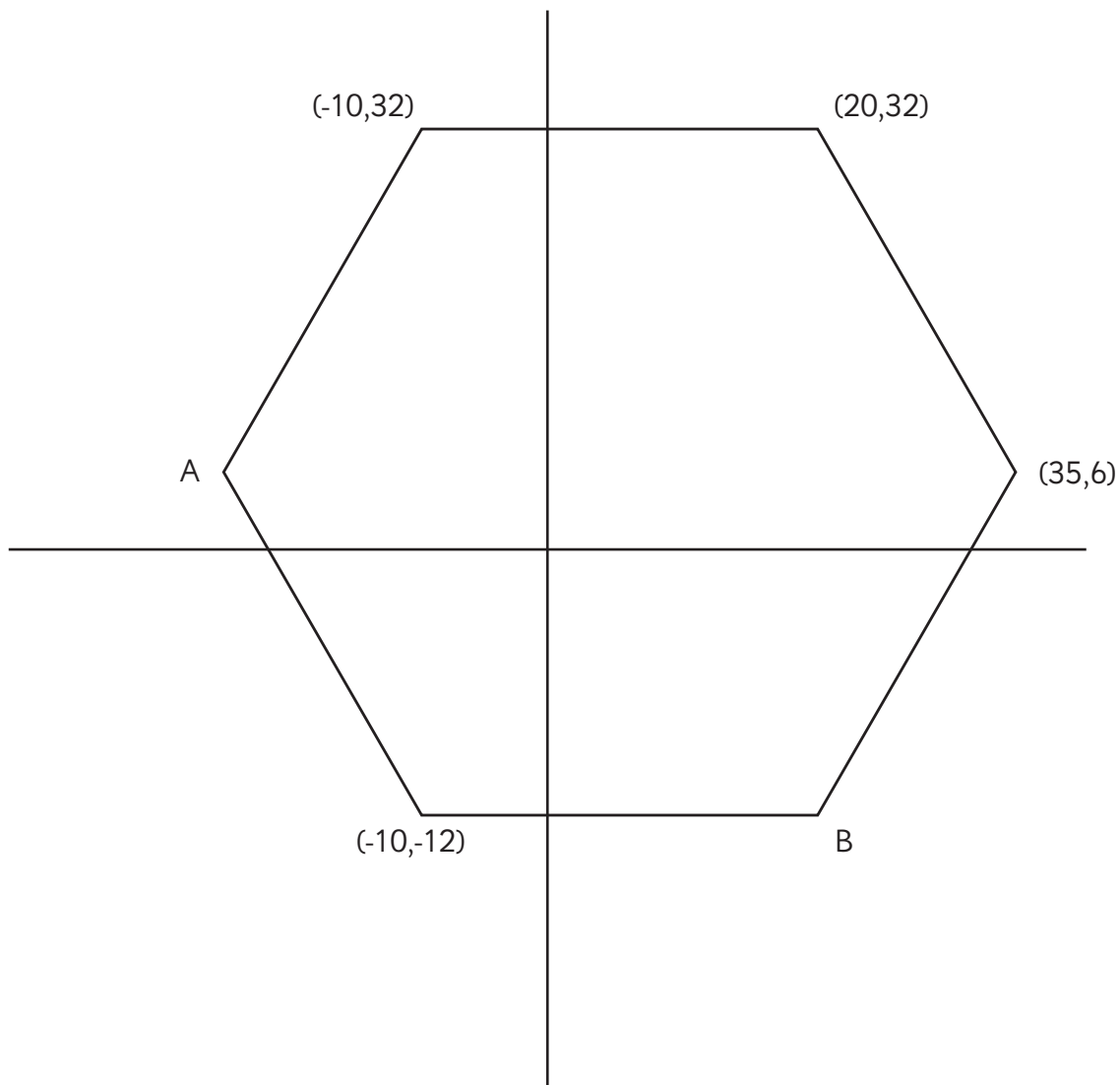
c) When is the largest change in temperature between measurements?

 to 






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



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

A =

B =



2 marks



Total for this page

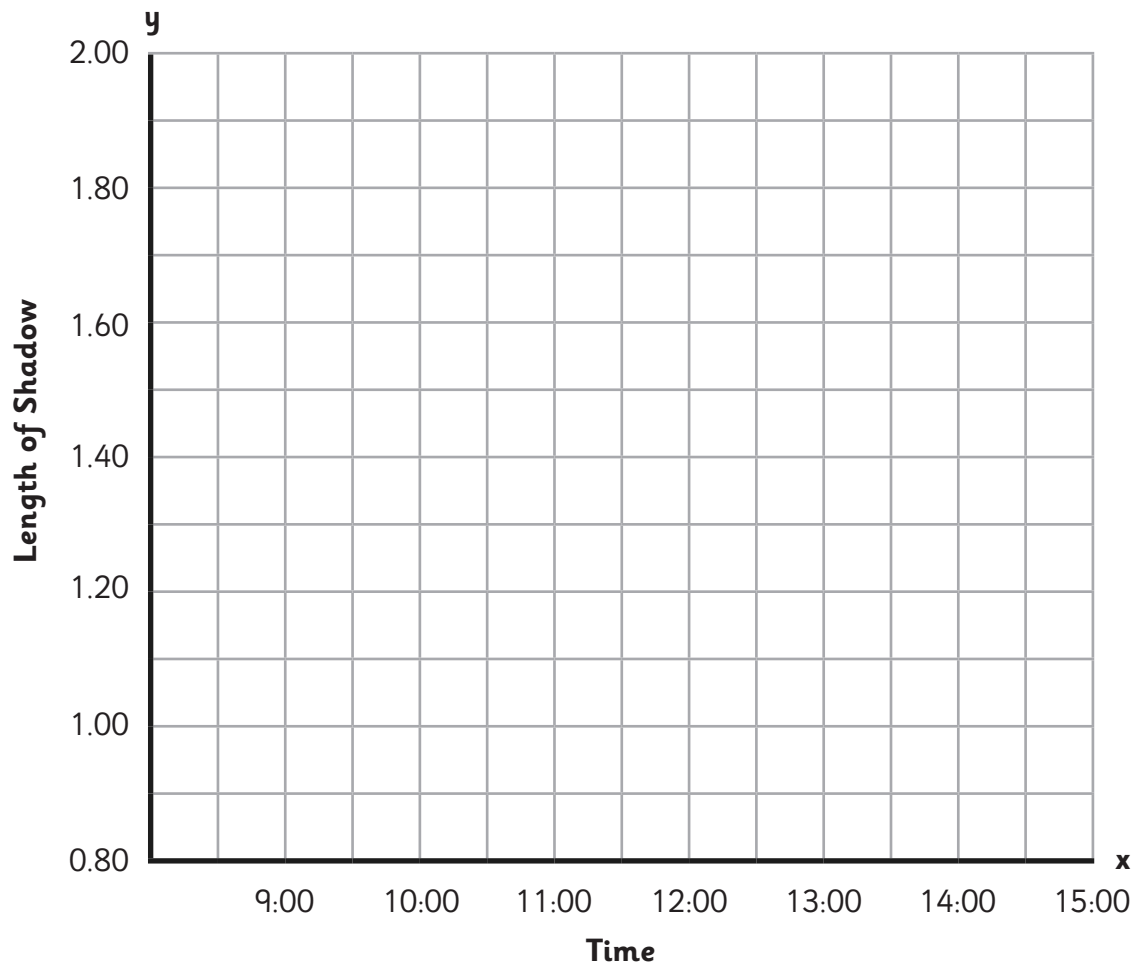
20. A class want to record the length of a shadow throughout the school day.

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

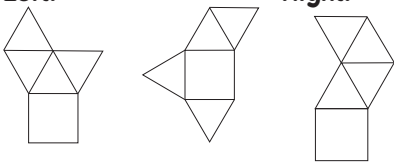
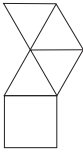
Using the grid below, draw a line graph that shows the results from the table.



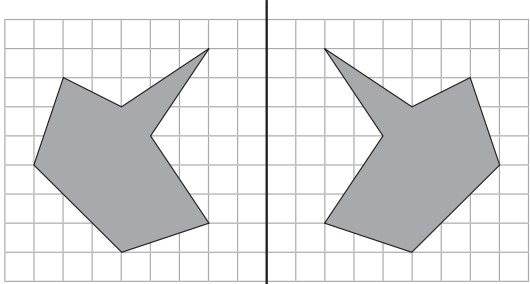
2 marks



Total for this page

question	answer	marks	notes
<b>1.</b>			
	$\frac{9}{12}$ and $\frac{15}{18}$	1	1 mark for both correct.
<b>2.</b>			
	4.1cm, 11.8cm, 10.2cm <b>or</b> 41mm, 118mm, 102mm	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.
<b>3.</b>			
	Possible answers: <b>Examples:</b> <b>Left:</b>  <b>Right:</b> 	2	1 mark for each correct answer, allowing any correct response for each net.  Accept any other correct variations of the nets.
<b>4.</b>			
	$\frac{9}{8}$ , $\frac{14}{12}$ , $\frac{6}{5}$ , $1\frac{1}{4}$	1	
<b>5.</b>			
	$\begin{array}{r} 5103 \\ -457 \\ \hline 4646 \end{array}$	1	
<b>6.</b>			
	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.
<b>7.</b>			
	MMDCCCIII	1	
<b>8.</b>			
a	3.445g	1	
b	3.4g	1	1 mark for a correct rounding of an incorrect answer to Q8a.



question	answer	marks	notes
<b>9.</b>			
	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.
<b>10.</b>			
a	60	1	
b	14 (37 - 23)	1	
<b>11.</b>			
	72	1	
<b>12.</b>			
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 6p or writing the correct answer with no units (7 or 0.07).
<b>13.</b>			
	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.
<b>14.</b>			
		1	1 mark for correct answer.

question	answer	marks	notes
<b>15.</b>			
	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.
<b>16.</b>			
a	15°C	1	
b	5	1	
c	08:00 to 09:00	1	
<b>17.</b>			
	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).
<b>18.</b>			
	£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.
<b>19.</b>			
	A <b>(-25,6)</b> B <b>(20, -12)</b>	2	2 marks for both correct or 1 mark for 1 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	