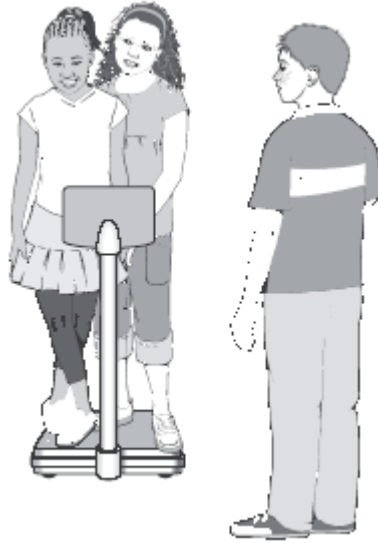


Fifteen Minute Warm up

Level 6

Fifteen Minute Warm up

Q1. Sarah, Amy and Liam stand on some weighing scales two at a time.



Here are the measurements:

Sarah and Amy **70kg**

Sarah and Liam **80kg**

Liam and Amy **80kg**

How much does Liam weigh?



Show your **working**.
You may get a mark

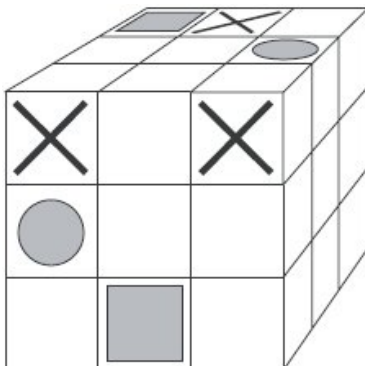
kg

2 marks

Fifteen Minute Warm up

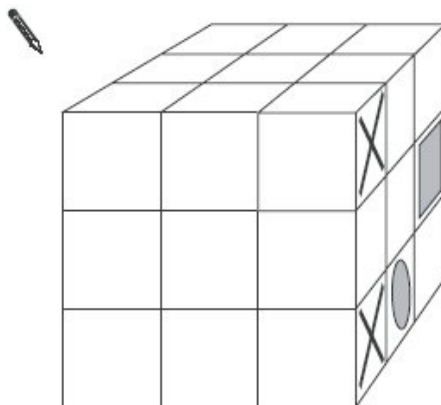
Q2. Cubes have been stuck together to make this block.

The block has a pattern on two faces.



The block is turned to the position below.

Draw the missing parts of the pattern on it.



2 marks

Q3. Calculate $\frac{7}{16}$ of 288



1 mark

Fifteen Minute Warm up

Q4. Here are four pairs of measurements.

For each pair, put a ring around the **larger** measurement.

One has been done for you.

4 centimetres

4 inches

10 kilometres

10 miles

2 litres

2 pints

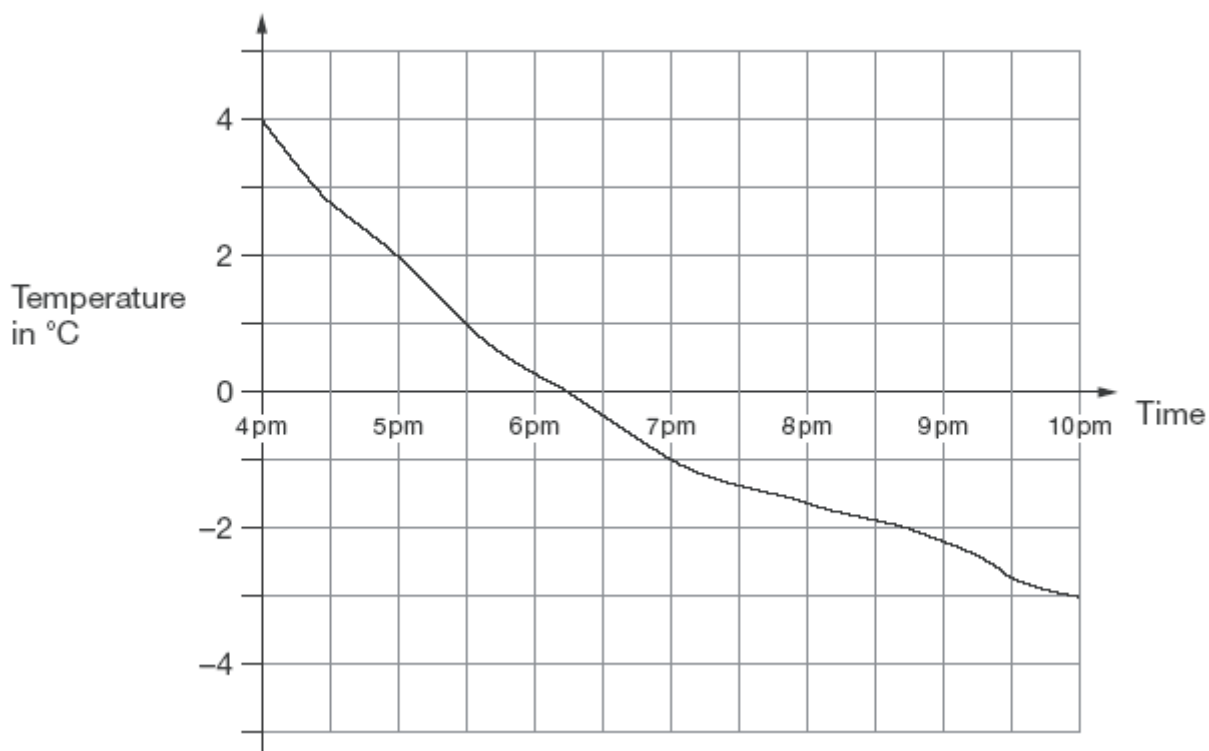
5 grams

5 pounds

1 mark

Fifteen Minute Warm up

Q5. This graph shows the outside temperature from 4pm to 10pm on a day in winter.



At what time was the temperature -2°C ?

1 mark

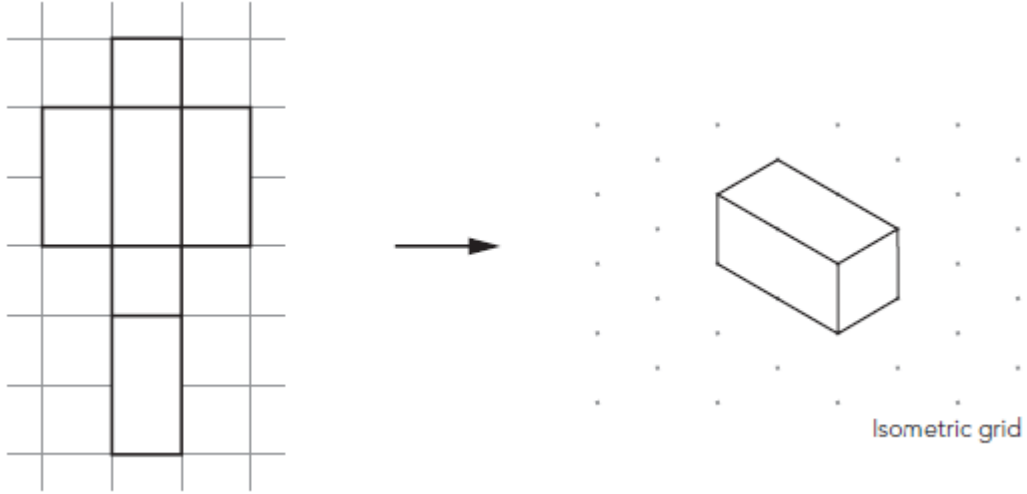
How many degrees did the temperature drop from 5pm to 7pm?

1 mark

Fifteen Minute Warm up

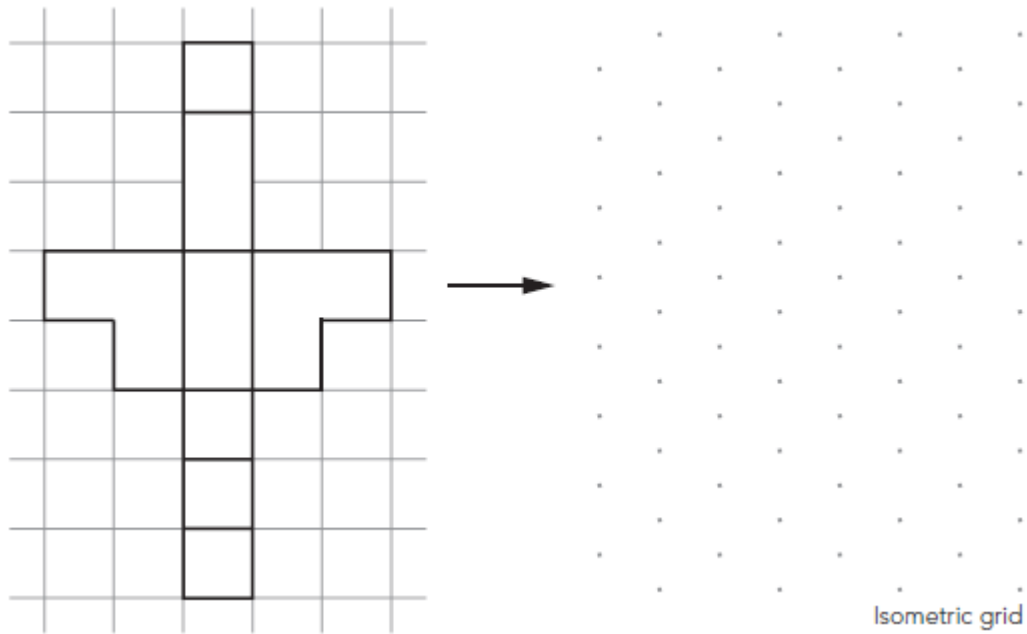
Q6. Look at the net drawn on square paper.

It folds to make a prism.



The net below folds to make a different prism.

Draw it on the grid.

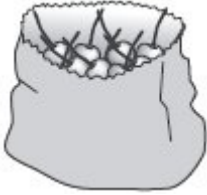


Isometric grid

2 marks

Fifteen Minute Warm up

Q7. Sarah had a bag of cherries.



She ate 5 cherries, then gave half of what she had left to Liam.

Liam ate 5 of his cherries, then gave half of what he had left to Amy.

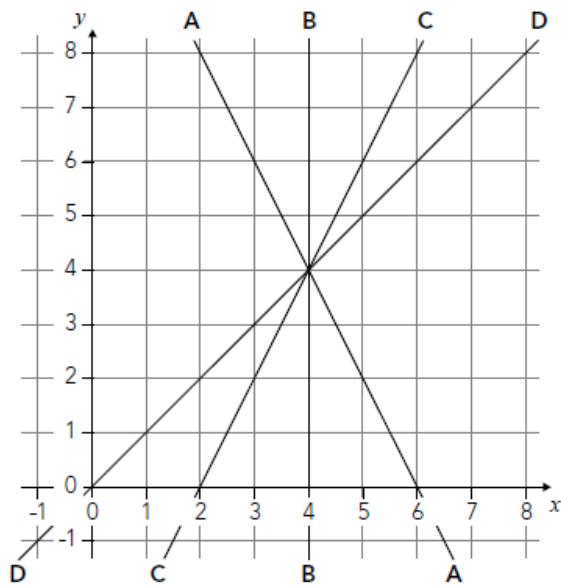
Amy got 2 cherries.

How many cherries did Sarah have in her bag at the start?

Show your **working**.
You may get a mark

2 marks

Q8. The diagram shows four straight lines, A, B, C and D.



Which line has the equation $y = x$?

Fifteen Minute Warm up

Circle A, B, C or D.

 A / B / C / D

Which line has the equation $x = 4$?

Circle A, B, C or D.

 A / B / C / D

1 mark

Draw a horizontal straight line through the point (4, 4) and **write its equation**.

1 mark

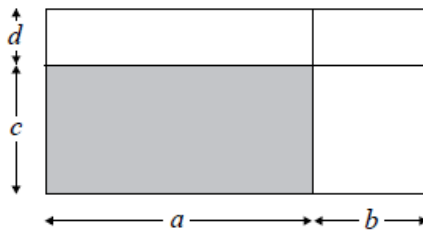


Q9. The diagrams show a rectangle divided into different parts.

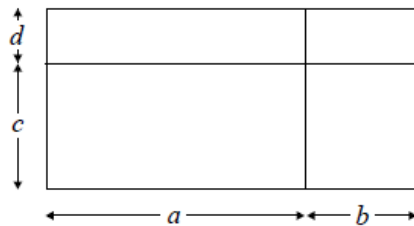
On each, **shade the area** represented by the expression.

The first one is done for you.

ac



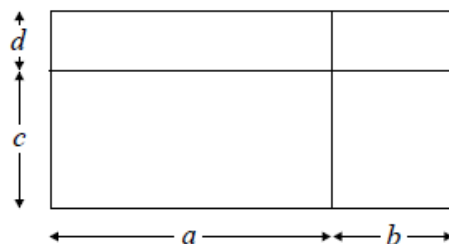
$ad + bd$



1 mark



$b(c + d)$



1 mark

Fifteen Minute Warm up

M1. Award **TWO** marks for the correct answer of 45

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg:

- $70 \div 2 = 35$
 $80 - 35$

OR

- $80 - 70 = 10$
 $70 \div 2 = 35$
 $35 + 10$

OR

- $80 + 80 = 160$
 $160 - 70 = 90$
 $90 \div 2$

OR

- $80 + 80 + 70 = 230$
 $230 \div 2 = 115$
 $115 - 70$

*Answer need not be obtained for the award of **ONE** mark.*

Sarah and Amy must weigh the same ...

Liam must weigh 10kg more than Sarah ...

Add the bottom two rows and subtract the top ...

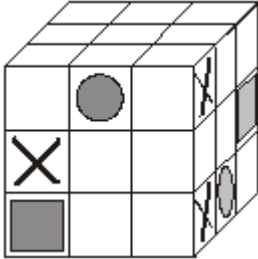
Add all three rows and halve the total ...

Up to 2 (U1)

[2]

Fifteen Minute Warm up

M2. Award **TWO** marks for the diagram completed as shown:



Accept slight inaccuracies in drawing provided the intention is clear.

Circle and square need not be shaded.

If the answer is incorrect, award **ONE** mark for two shapes correct and no more than one incorrect.

Up to 2

[2]

M3. 126

[1]

M4. Measurements circled as shown:

4 centimetres	4 inches
10 kilometres	10 miles
2 litres	2 pints
5 grams	5 pounds

Accept alternative unambiguous indications, eg measurements ticked, crossed or underlined.

[1]

M5. (a) Answer in the range of 8:40pm to 8:50pm inclusive

The answer is a specific time

1

(b) 3

Do not accept -3

1

Fifteen Minute Warm up

M6. Draws a correct view of the prism in any orientation, using the isometric grid, eg:

•



•



2

or

Draws a correct view, using the isometric grid, but the only error is either to omit one external line or to show some incorrectly indicated hidden lines, eg

•



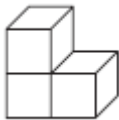
OR

Draws a view of a prism with an L-shaped cross section, using the isometric grid with all external lines and no incorrectly indicated hidden lines shown, but with incorrect dimensions

OR

Shows an understanding that the net forms a prism with an L-shaped cross-section, showing all external lines and no incorrectly indicated hidden lines, but does not use the isometric grid, eg

•



OR

Draws a correct view of the cross-section, using the isometric grid, eg

•



1

Fifteen Minute Warm up

Accept some or all internal lines drawn, eg

•



! Lines not ruled or accurate

Accept provided the pupil's intention is clear

! Extended edges

Condone

! Prism enlarged

For 2m or 1m, accept provided a consistent scale factor has been used for all lengths

! For 2m, some or all hidden lines shown

Do not accept unless hidden lines are dotted or otherwise shown as hidden

eg, do not accept

•



Do not accept for 2m, any external line omitted

! For 1m, L-shaped cross-section

The cross-section must have a line of symmetry eg, for 1m do not accept

•



! For 1m, additional lines shown with correct cross-section

Ignore

[2]

Fifteen Minute Warm up

M7. Award **TWO** marks for the correct answer of 23

If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg

$$2 \times 2 = 4$$

$$4 + 5 = 9$$

$$9 \times 2 = 18$$

$$18 + 5 = \text{wrong answer}$$

*Working must be carried through to reach an answer for the award of **ONE** mark.*

Up to 2 (U1)

[2]

M8. Indicates D

then

Indicates B

1

Gives a correct equation

eg

- $y = 4$

- $y - 4 = 0$

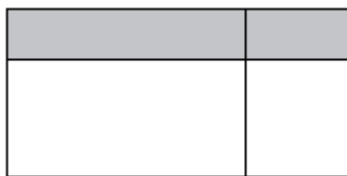
Accept line not drawn or incorrect

***Do not accept** follow-through from their incorrect line*

1

[2]

M9. Indicates the correct area, eg

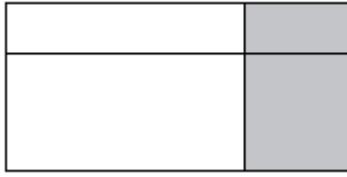


Accept unambiguous indication

1

Indicates the correct area, eg

Fifteen Minute Warm up



•

Accept unambiguous indication

1

[2]