

Programme 10 Enlargement

Worksheet 1: Programme Questions

1. Jamie is 182cm tall. How tall is the blown up version?

2. How tall is the Harry Potter poster?

3. What is the scale factor that has been used to enlarge the original drawing to the size of the poster?

4. What letter is used on the grid to label the centre of enlargement?

5. What scale factor is used to enlarge the shape on the grid?

6. In the mini Mini item, what formula does Jamie use to work out the scale factor?

7. To produce the model mini, by what fraction has the real Mini been scaled down?

8. What statue is Jamie searching for at Microworld?

9. What is the effect on the image of a fractional scale factor between 0 and 1?

10. In 'Tick or Trash', what is the correct centre of enlargement?

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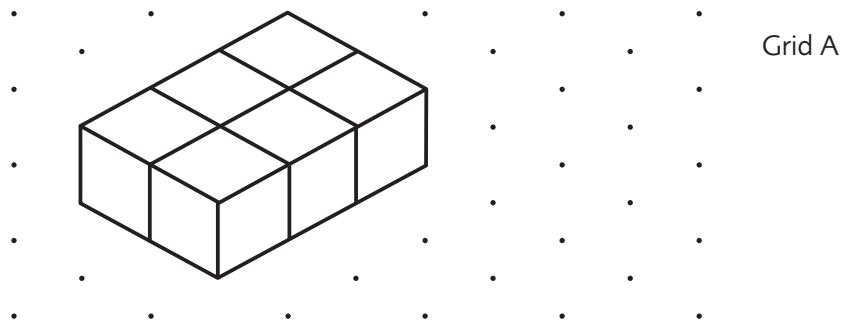
Worksheet 2: Tick or Trash

Here are some questions and answers (by Students A and B) on enlargement.

Decide which answers to Tick (correct) and which to Trash (incorrect). Give reasons.

Question 1

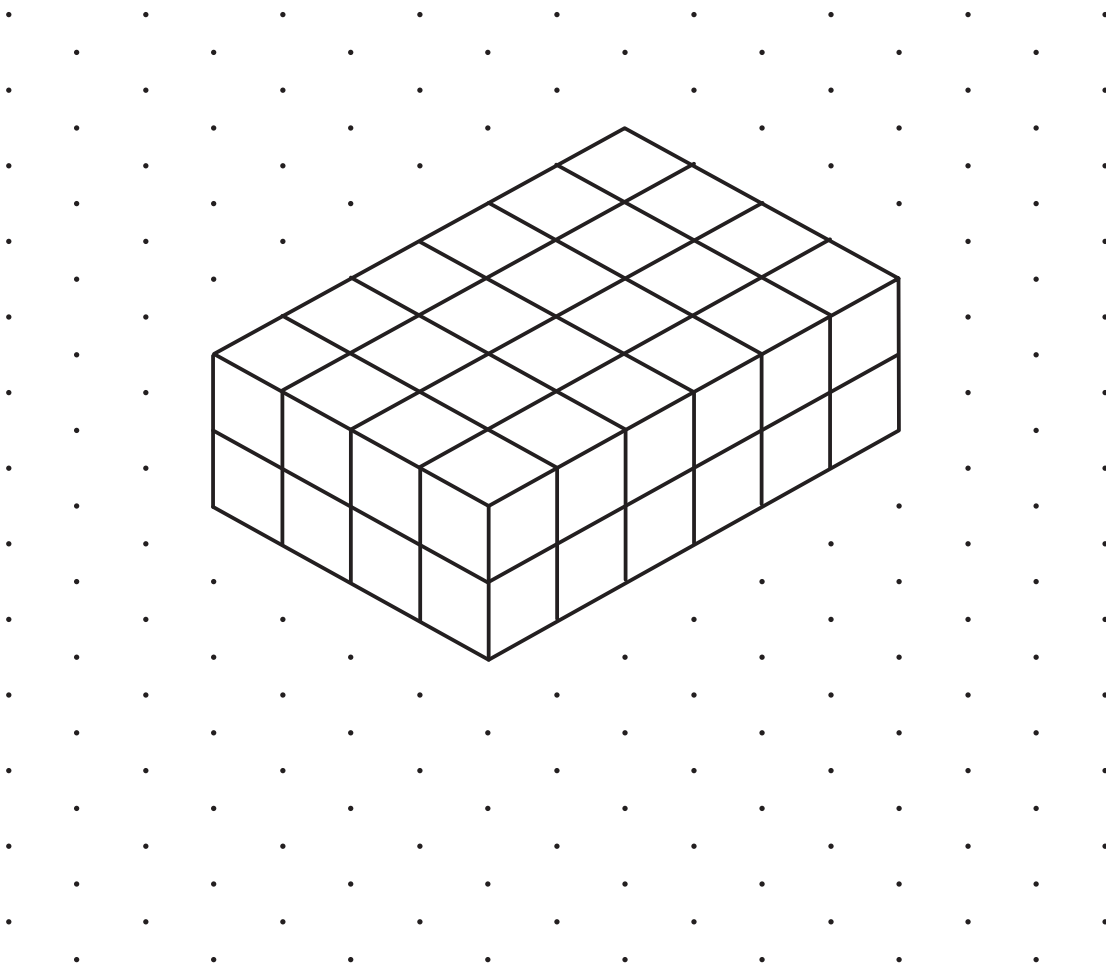
The measurements of the cuboid on Grid A are 3cm by 2cm by 1cm.



On Grid B draw a cuboid with measurements which are **double** the measurements of the cuboid on Grid A.

Student A Answer

Grid B



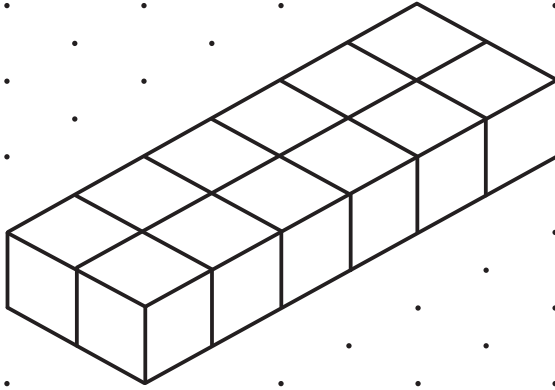
Maths 4 Real 2

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Worksheet 2: Tick or Trash

Student B Answer

Grid B

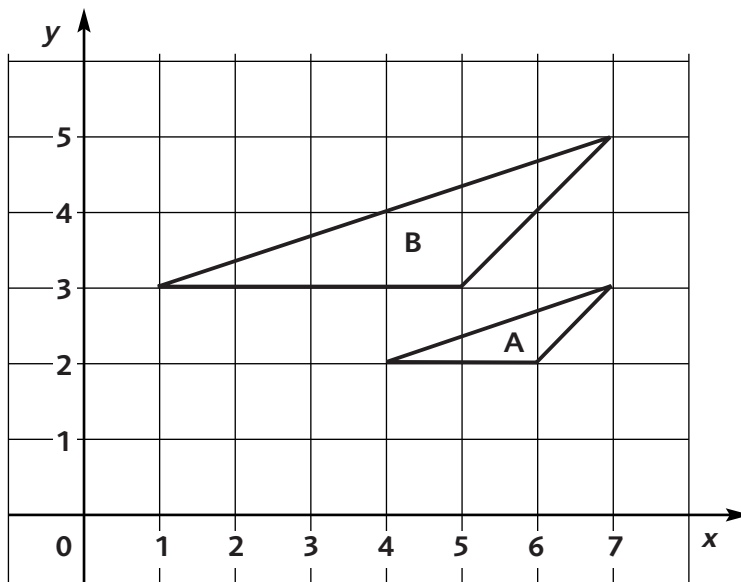


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Worksheet 2: Tick or Trash

Question 2

Describe fully the transformation that maps the shape **B** on to shape **A**.



Student A Answer

An enlargement scale factor of $\frac{1}{2}$
and centre (7, 1).

Student B Answer

An enlargement scale factor of 2
and centre (7, 1).

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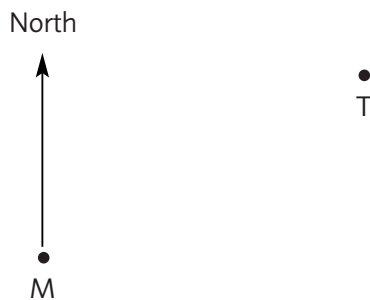
Worksheet 3: Exam Practice Questions (Edexcel)

Question 1

National curriculum reference: S3a Date: June 1997 Paper: 2

The scale drawing below shows the positions of an airport tower, T, and a radio mast, M.

1cm on the diagram represents 20km.



- (a) i) Measure, in centimetres, the distance TM.
ii) Work out the distance in km of the airport tower from the radio mast.
- (b) i) Measure and write down the bearing of the airport tower from the radio mast.
ii) Write down the bearing of the radio mast from the airport tower.

A plane is 80km from the radio mast on a bearing of 220° .

- (c) Plot the position of the plane, using a scale of 1cm to 20km on the scale diagram. [8]

Question 2

National curriculum reference: S3d Date: June 1998 Paper: 2

The diagram represents two photographs.

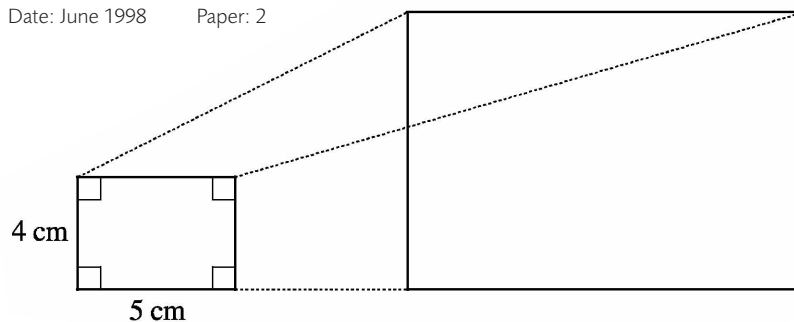


Diagram NOT accurately drawn

- (a) Work out the area of the small photograph.
State the units of your answer. (2 marks)
- The photograph is to be enlarged by scale factor 3.
- (b) Write down the measurements of the enlarged photograph. (2 marks)
- (c) How many times bigger is the area of the enlarged photograph than the area of the small photograph? (2 marks)

[6]

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Worksheet 3: Exam Practice Questions (Edexcel)

Question 3

National curriculum reference: S3d Date: June 1998 Paper: 3

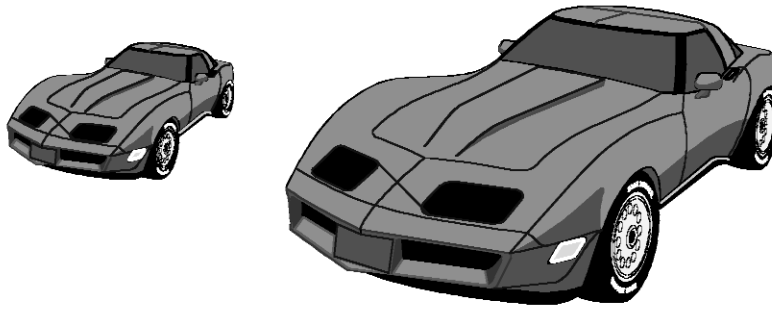


Diagram NOT
accurately drawn

Simone made a scale model of a "hot rod" car on a scale of 1 to 12.5.
The height of the model car is 10 cm.

(a) Work out the height of the real car. (1 mark)
The length of the real car is 5m.

(b) Work out the length of the model car. Give your answer in centimetres. (1 mark)

The angle the windscreen made with the bonnet on the real car is 140° .

(c) What is the angle the windscreen makes with the bonnet on the model car? (1 mark)

The width of the windscreen in the real car is 119cm correct to the nearest centimetre

(d) Write down the smallest length this measurement could be. (1 mark)
[4]

Question 4

National curriculum reference: S3d Date: June 1995 Paper: 1

Rashmi uses a map with a scale of 1 to 50 000.
She measures the distance between two points on the map.
The distance that Rashmi measures on the map is 8.2cm.
Work out the actual distance between the two points.
Give your answer in kilometres.

[3]

Maths 4 Real 2

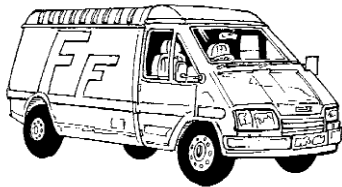
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Worksheet 3: Exam Practice Questions (Edexcel)

Question 5

National curriculum reference: S3d Date: June 1995 Paper: 1

The Fast Foto company uses two letter F's as part of their logo.



The letter F's are similar in shape.

The lengths of the large F and the lengths of the small F are in the ratio 3:2.

The height of the large F is 0.9m.

(a) Work out the height of the small F.

The width of the small F is 28cm.

(b) Work out the width of the large F.

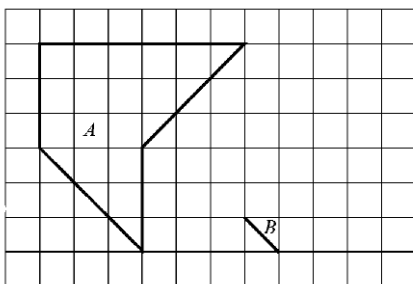
[4]

Question 6

National curriculum reference: S3d Date: June 1997 Paper: 3

Shape *A* is shown in the diagram.

Shape *A* is reduced to obtain the shape *B*.



(a) Write down the scale factor of the reduction.

(b) Complete the drawing of Shape *B* on the diagram.

[3]

Maths 4 Real 2

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Worksheet 3: Exam Practice Questions (Edexcel)

Question 7

National curriculum reference: S3d Date: June 1997 Paper: 4

Here is a diagram of a company logo.

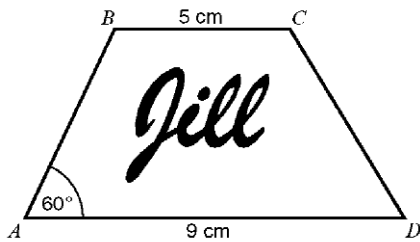


Diagram NOT accurately drawn

The diagram is enlarged so that the length BC becomes 7.5cm.

(a) Work out the length of the enlarged side AD .

The enlarged side AB is 6cm.

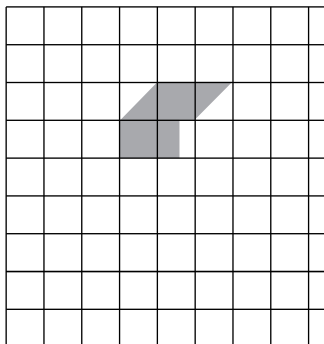
(b) Work out the length AB on the original diagram.

(c) What is the size of angle A in the enlarged diagram?

[5]

Question 8

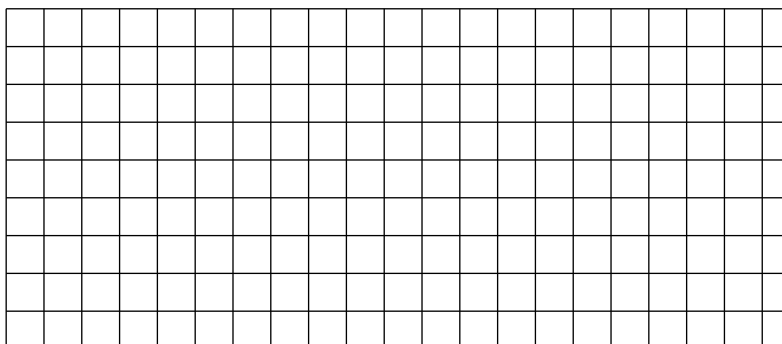
National curriculum reference: S3d Date: June 1999 Paper: 2



Grid A

A shaded shape is shown on Grid A.

On Grid B, draw an enlargement, scale factor 2, of the shaded shape.



Grid B

[2]

Total = 35