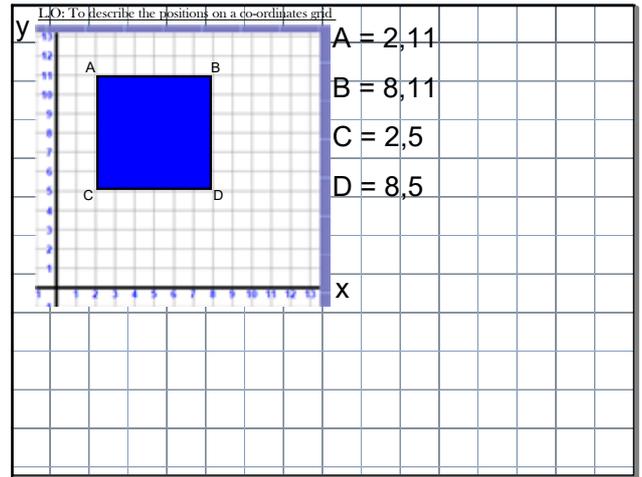


This week's maths
Transformations
Learning objectives
 Monday - To describe the positions on a co-ordinates grid
 Tuesday - To improve calculation fluency (20for20)
 Wednesday - To translate shapes on a grid
 Thursday - To reflect shapes on a grid
 Friday - To understand scale factor enlargement

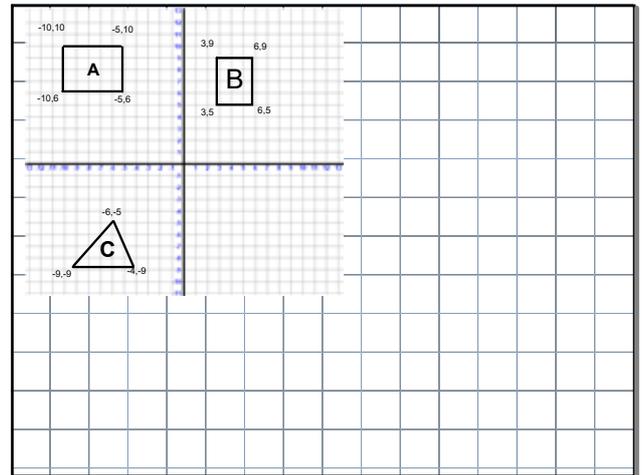


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Year 5s.

- On a grid, or in your book if you want to go larger.
- Draw on a range of shapes (not just squares) and label their vertices using letters.
- Also label your shape with a letter
- I would expect to see at least A-C for the vertices.
- Under your grid or on the next page write down the co-ordinates of the shapes you have just created.

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Sep 10-18:45

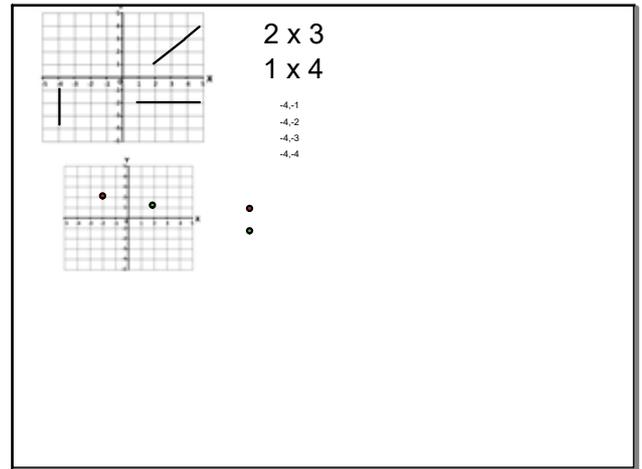
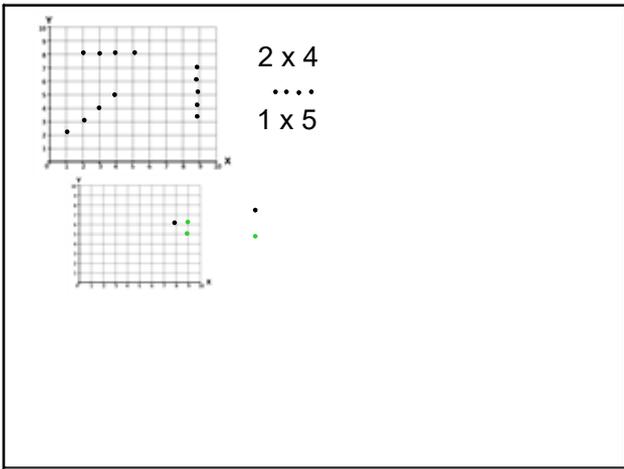
Missing co-ordinates

Tommy is drawing a rectangle on a grid.
 Plot the final vertex of the rectangle.
 Write the coordinate of the final vertex

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Battleships

Sep 10-18:45



LO: To translate shapes on a grid

What is a translation?

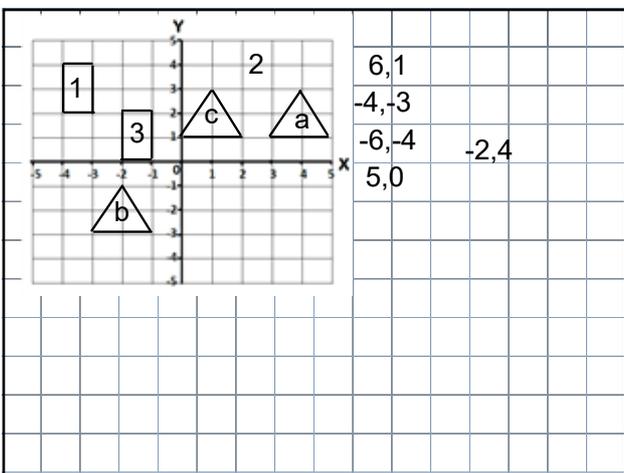
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Translation is moving a shape on a grid

3, -2
-3, 1
-3, 2
-3, 1

-Right - Left
-Up - Down

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Sep 10-18:45

Year 6 extension task

1)

Sep 10-18:45

LO: To reflect shapes on a grid

What is a reflection?
 What happens to a shape or object when we reflect it?

Year 6 tasks: page 88 of Year 6 MMWGD
 (Print from book)

Year 5 reflections.docx
 Year 6 translation and reflection work.docx

Sep 10-18:45

What is a reflection?
What happens to a shape when we reflect it?

Which of the diagrams show reflections in the given mirror line?

Year 6 tasks: page 88 of Year 6 MMWGD
 (Print from book)

Year 5 reflections.docx
 Year 6 translation and reflection work.docx

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Rule: the vertices of the object and its image must be the same distance from the mirror line

Year 6 tasks: page 88 of Year 6 MMWGD
 (Print from book)

Year 5 reflections.docx
 Year 6 translation and reflection work.docx

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How do I reflect this square across $Y = 4$?

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How do I reflect this triangle across $X = 6$?

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Year 5 task

Year 6 tasks: page 88 of Year 6 MMWGD
 (Print from book)

Reflection

Challenge 2: Reflect shape E over the line $y=2$ and label the reflection as shape F.

Challenge 4: Area has drawn shape G to have an area of 200cm² and a perimeter of 770cm. The shape is translated 3 units, 1 right then reflected over the line $y=2$ and finally reflected over the line $y=2$ to create shape H.

She asks you to find the area and perimeter of shape H either by calculation or measurement. Why does she not need to do any calculation or measurement? What is the area and perimeter of shape H?

Challenge 3: Copy the diagram below.

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Year 6: How do I reflect this square across the y axis? Across the x axis?

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How do I reflect this triangle across the y axis? Across the x axis?

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How do I reflect this across the y axis? Across the x axis?

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Year 6: How do I reflect this across $y = -1$? Across $X = -1$?

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Year 6 Task

Sep 10-18:45

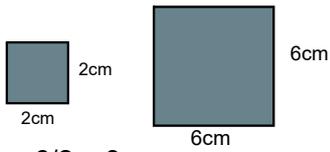
Challenge:

- 1) Draw your own quadrant (Year 6 can draw 4)
- 2) Draw half a shape or object using a ruler.
- 3) Underneath write a reflection instruction eg) reflect across $X = 3$
- 4) Then complete the reflection yourself

You can challenge yourself by drawing harder shapes to complete.

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L.O. To understand scale factor enlargement

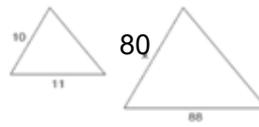


$$6/2 = 3$$

$$2 \quad 6$$

$$x3$$

Triangle enlarged by a scale factor of 8



$$88/11 = 8$$

Enlarged by a scale factor of 11

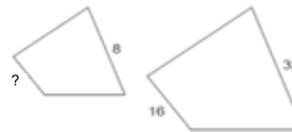


$$10 \times ? = 110$$

$$110/10 = 11$$

$$3 \times 11 = 33$$

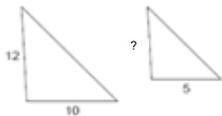
Enlarged by a SF of 4



$$32/8 = 4$$

$$16/4 = 4$$

Enlarged by a scale factor of a 1/2



$$10/5 = 2$$

$$12 / 2 = 6$$

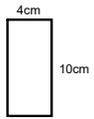
Enlarged by a scale factor of 1/8



$$48 / 6 = 8$$

$$56 / 8 = 7$$

Enlarge this rectangle by a scale factor of 10



Enlarge this triangle by a scale factor of $\frac{1}{5}$



Attachments

Lesson 3 3D_Shape_Properties_Table.pdf
Lesson 3 3D_shape_properties_HA.pdf
lesson 1 Name the polygon.docx
Lesson 1 Name the quadrilateral.docx
lesson 1 Regular vs Irregular sheet.docx
Polygon and quadrilateral types answers.docx
Name the Quadrilateral types.docx
making nets of 3d shapes.doc
Shape week 2 Planning.docx
Year 6 missing coordinates.docx
lesson 1 Year 5 quadrant.docx
Year 6 quadrants.docx
lesson 2 Year 6 translation.docx
lesson 2 enrichment.docx
Year 6 translation and reflection work.docx
Year 5 reflections.docx
Coordinate-Battleships---Differentiated.pdf
Yr6 coordinates extension.docx
Y5 translation extension.docx
Y6 translation extension.docx
Translation practice grids.docx