

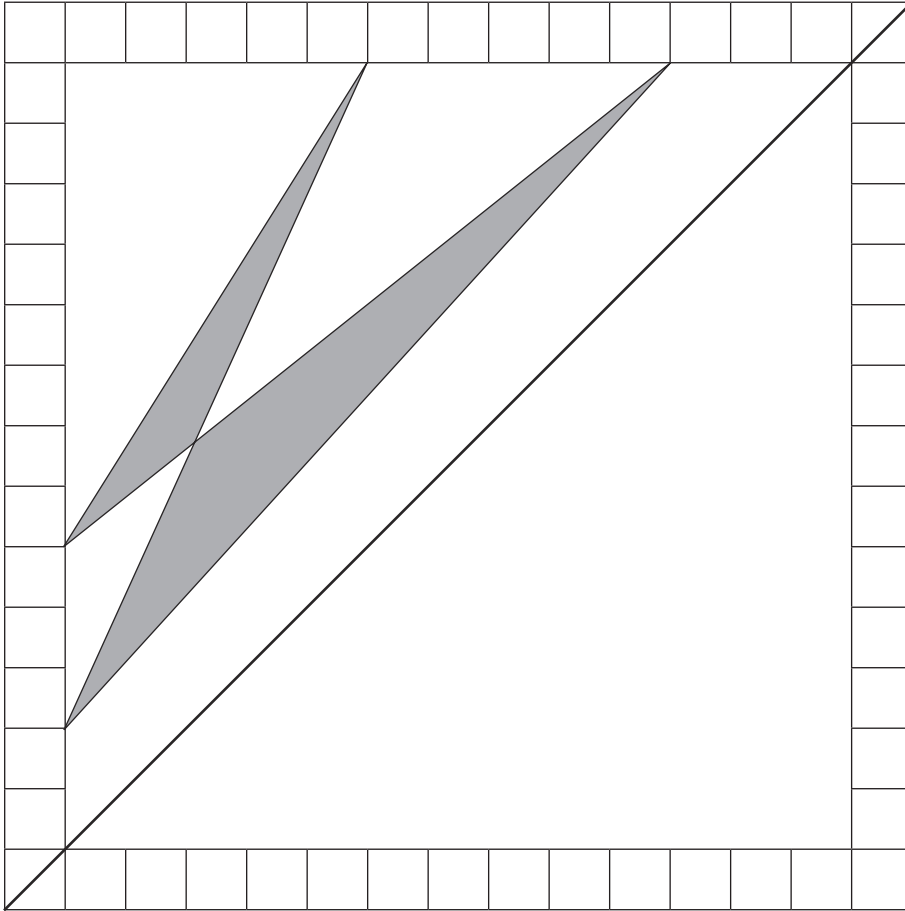
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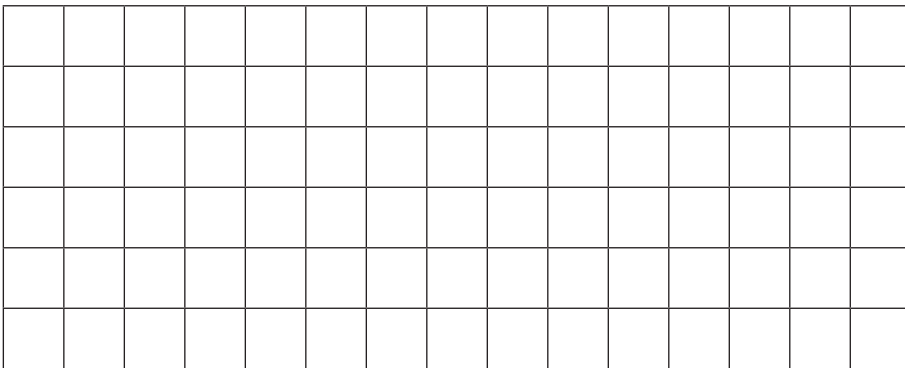
Year 6 Reasoning Quiz 5

Symmetry

1. Draw the reflection of this shape in the mirror line.

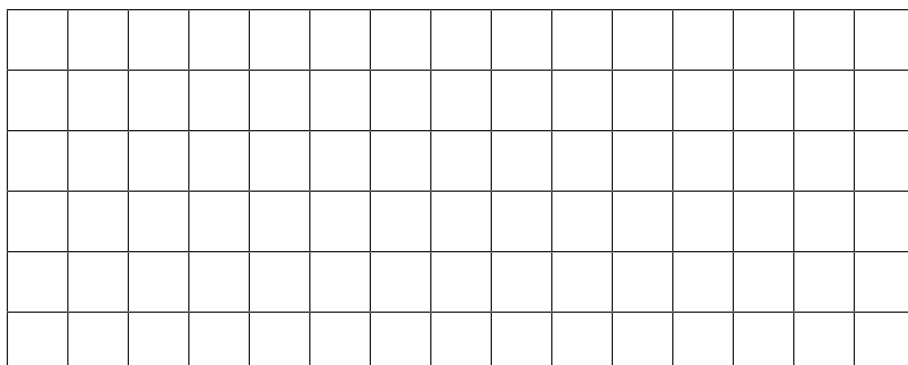


2. Draw an isosceles triangle on the grid and mark any lines of symmetry.

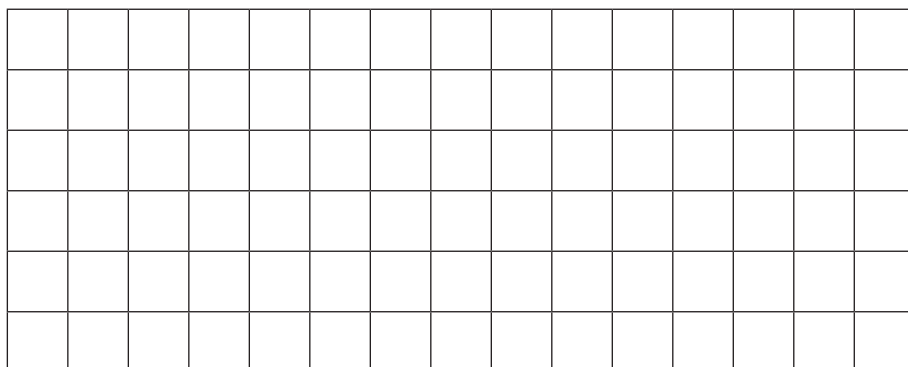


Properties of Shape

3. On this grid, draw a quadrilateral with 2 sides perpendicular and no sides parallel.

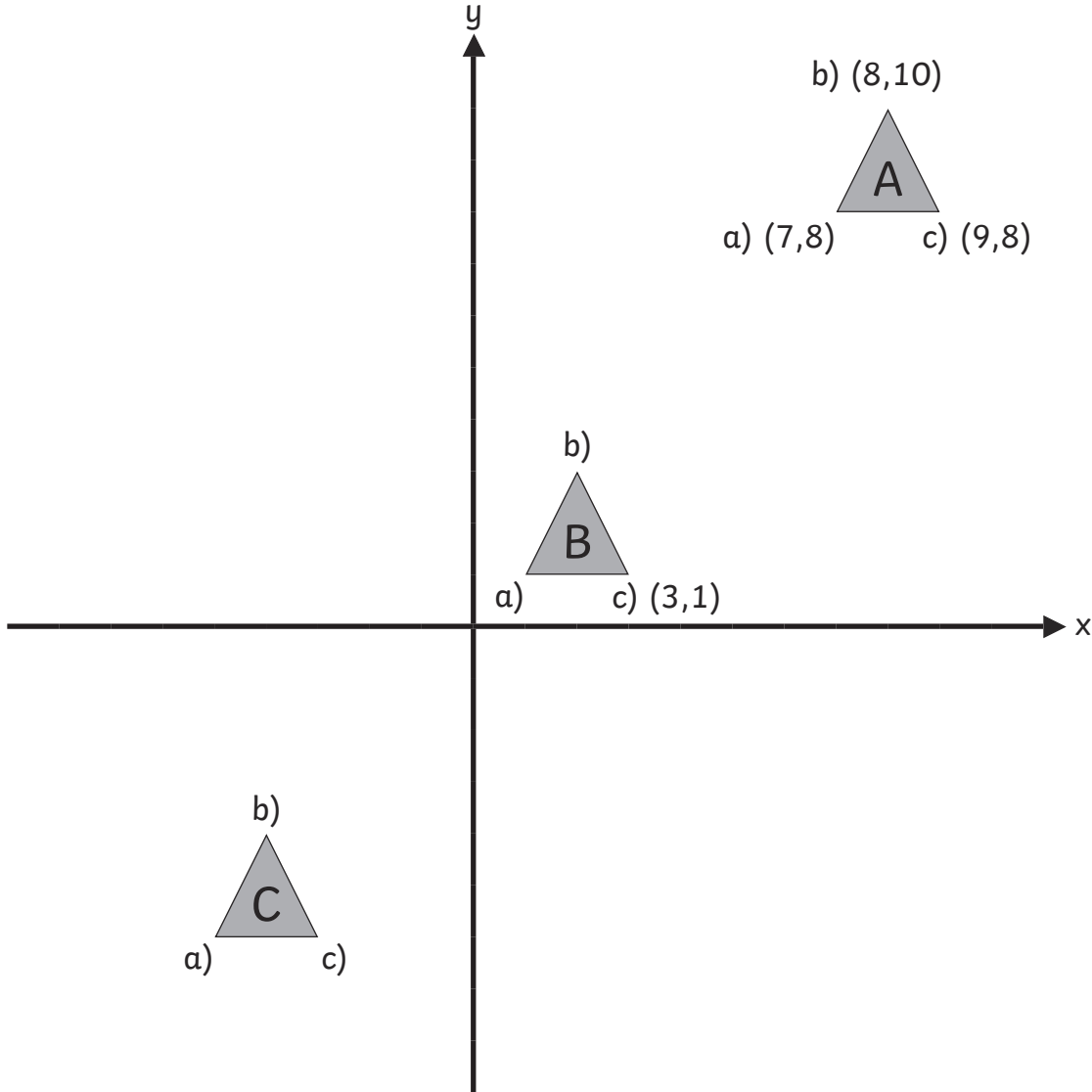


On this grid, draw a quadrilateral with 2 sides that are parallel and no sides that are perpendicular.



Coordinates

4. Shape A is translated to Shape B. Shape B is then translated in the same way to Shape C. Complete the coordinates of Shapes B and C.



Shape A coordinates

a) $(7,8)$

b) $(8,10)$

c) $(9,8)$

Shape B coordinates

a) _____

b) _____

c) $(3,1)$

Shape C coordinates

a) _____

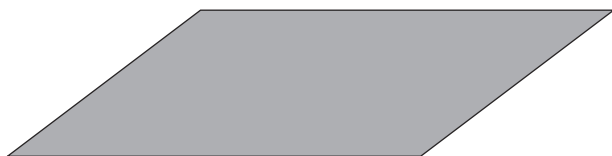
b) _____

c) _____



Angles

5. Accurately measure the different angles in this parallelogram.



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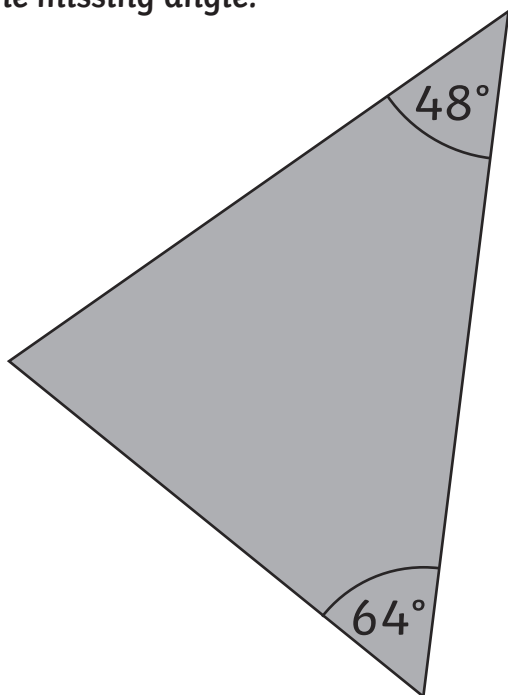
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6. Draw a line at an angle of 72° to this line.



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7. Find the missing angle.

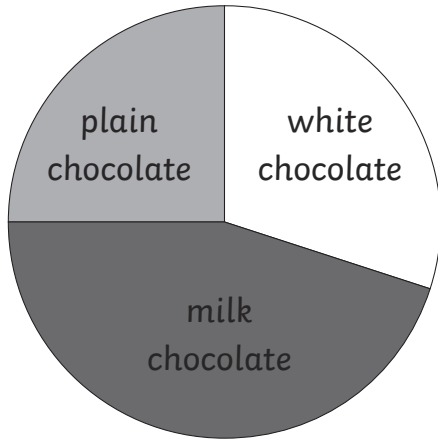


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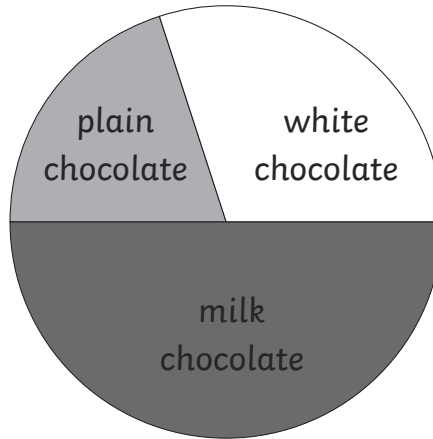
Pie Charts

8. 100 girls and 50 boys were asked which kind of chocolate they like best.

These two pie charts show the results.



100 girls

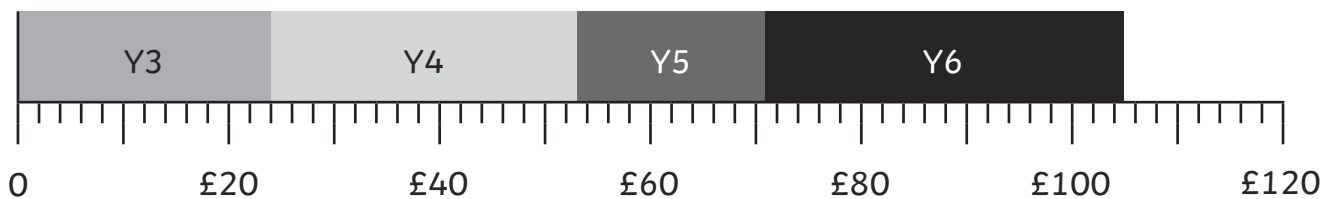


50 boys

Explain why the number of girls who preferred plain chocolate is the same as the number of boys who preferred milk chocolate.

9. Each class raises some money for charity.

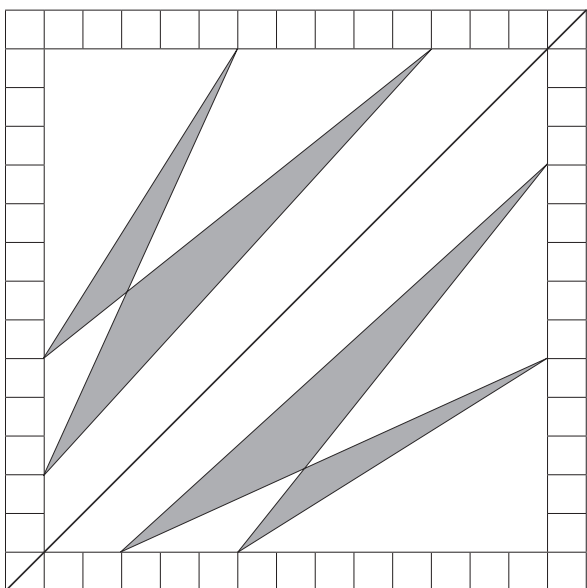
This bar chart shows how much each class raised



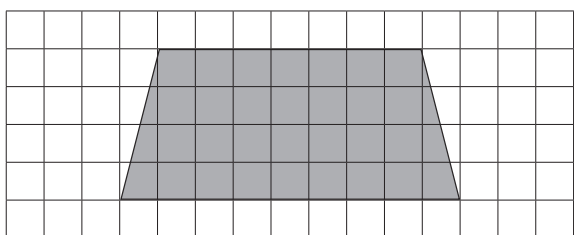
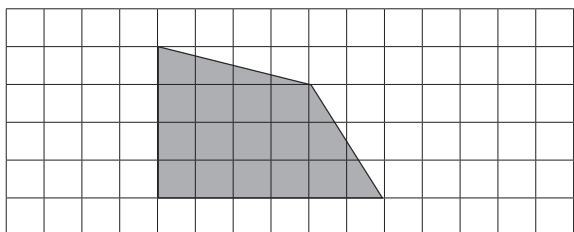
a) Which classes raised more than £25?

b) Which classes raised more; Year 3 and 4 combined or Year 5 and 6 combined?

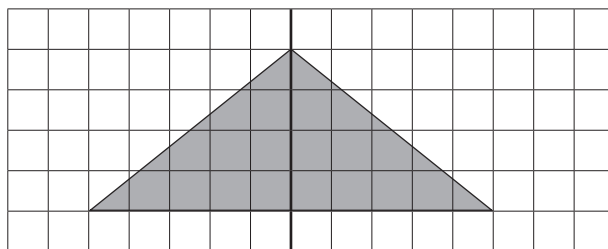
1



3 Example

5 37° and 143°

2 Example



4 Shape B coordinates:

a) (1,1)

b) (2,3)

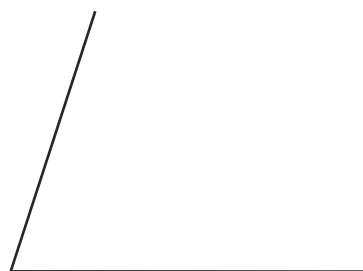
Shape C coordinates:

a) (-5,-6)

b) (-4,-4)

c) (-3,-6)

6



7 68°

9 a) Y4 and Y6

b) Years 3 and 4 raised more (£53 > £52)

8 A quarter of the girls liked plain chocolate best = 25 girls

Half of the boys who liked milk chocolate best = 25 boys

10 Answer is 1 mark