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) ___________

Shape C coordinates
a) ___________
b) ___________
c) ___________
Angles

5. Accurately measure the different angles in this parallelogram.

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

7. Find the missing angle.
Pie Charts

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

These two pie charts show the results.

![Pie chart for girls and boys](chart.png)

100 girls  
50 boys

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

9. Each class raises some money for charity.

This bar chart shows how much each class raised

![Bar chart for class fundraising](chart.png)

a) Which classes raised more than £25?

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

10. A group of children take a spelling test. The marks were 7, 6, 8, 4 and 5.

They take another test a week later and the scores are 9, 9, 6, 4 and 7.

What is the improvement in the average score from the first test to the second?

**END OF TEST**
1. Example

2. Example

3. Example

4. Shape B coordinates:
   a) (1,1)
   b) (2,3)

Shape C coordinates:
   a) (-5,-6)
   b) (-4,-4)
   c) (-3,-6)

5. 37º and 143º
Reasoning Quiz 5

7  68°

8  A quarter of the girls liked plain chocolate best = 25 girls
Half of the boys who liked milk chocolate best = 25 boys

9  a) Y4 and Y6
b) Years 3 and 4 raised more (£53>£52)

10 Answer is 1 mark