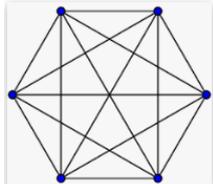


Probing Questions Wednesday (10 – 15) & Thursday (16 – 22)

SHAPE	
10	What properties do you need to know about a quadrilateral to be sure it is a kite?
11	If an isosceles triangle has one angle of 50° , What are the other two angles? Give all possibilities.
12	Find all the possible side lengths for an isosceles triangle with a perimeter of 22 cm and one side of 8 cm.
13	Tim says a rhombus is a parallelogram but a parallelogram isn't necessarily a rhombus. Is he right?
14	You have a square and a regular hexagon with sides of the same length. What fraction of the hexagon's perimeter is the square's perimeter?
15	On a six-sided dice, the faces are numbered from 1 to 6, and opposite faces should add up to 7. Draw a net for a cube. Choose a face and write 5 on it. Now write numbers on the other faces so that when the cube is folded up, opposite faces add up to 7.
16	Do hexagons have 9 diagonals?
17	Give me instructions to draw a rhombus using my ruler and a protractor.
18	On square paper, use a ruler to draw a pentagon that has three right angles and one line of symmetry.
19	<i>if you have a protractor at home</i> Draw two intersecting lines. Estimate the size of the angles you created. Now measure them to the nearest degree. How close was your estimate?

20	<p>Draw a shape with the coordinates $(-5,1)$ $(-4,-1)$ $(-5,-4)$ $(-6,-1)$.</p> <p>Describe the shape you have drawn. Can you create the same shape where all the coordinates will be positive?</p>
21	<p>You are drawing a rectangle. The coordinates you have are $(-3,-1)$, $(-1,-2)$ and $(1,2)$. What are the coordinates for the missing vertex?</p>
22	<p>Using a coordinate grid (x up to 10 and y up to 10), draw a shape with one line of symmetry and give its coordinates.</p>

ANSWERS BELOW

SHAPE	Answers
<p>10</p> <p>What properties do you need to know about a quadrilateral to be sure it is a kite?</p>	<p>Properties of kites:</p> <ul style="list-style-type: none"> - adjacent sides are equal - one line of symmetry - one pair of opposite angles are equal - diagonals are perpendicular
<p>11</p> <p>If an isosceles triangle has one angle of 50°, What are the other two angles? Give all possibilities.</p>	<p>A: 50° and 80°</p> <p>B: 75° and 75°</p>
<p>12</p> <p>Find all the possible side lengths for an isosceles triangle with a perimeter of 22 cm and one side of 8 cm.</p>	<p>A: a = 8 cm b = 8 cm c = 6 cm</p> <p>B: a = 8 cm b = 7 cm c = 7 cm</p>
<p>13</p> <p>Tim says a rhombus is a parallelogram but a parallelogram isn't necessarily a rhombus. Is he right?</p>	<p>A parallelogram is a quadrilateral with two sets of parallel lines; and a rhombus has two sets of parallel lines. A rhombus is a quadrilateral with two sets of parallel lines where all sides are equal. That's a parallelogram where only the opposite sides are equal is not a rhombus.</p>
<p>14</p> <p>You have a square and a regular hexagon with sides of the same length. What fraction of the hexagon's perimeter is the square's perimeter?</p>	<p>$\frac{2}{3}$ or $\frac{4}{6}$</p> <p>Think about it if you do not understand the answer: if the side length was 1 cm, the perimeter of the square would be 4 cm and that of the hexagon 6 cm.</p>
<p>15</p> <p>On a six-sided dice, the faces are numbered from 1 to 6, and opposite faces should add up to 7. Draw a net for a cube. Choose a face and write 5 on it. Now write numbers on the other faces so that when the cube is folded up, opposite faces add up to 7.</p>	<p>To check whether you are right, draw it on a spare piece of paper, cut it out and test it!</p>
<p>16</p> <p>Do hexagons have 9 diagonals?</p>	<p>Yes! A diagonal is a line segment that runs from a vertex to another vertex, excluding sides.</p> 
<p>17</p> <p>Give me instructions to draw a rhombus using my ruler and a protractor.</p>	<p>You can send them to me via Showbie.</p>
<p>18</p> <p>On square paper, use a ruler to draw a pentagon that has three right angles.</p>	<p>It should look something like a house.</p>
<p>19</p> <p>Draw two intersecting lines. Estimate the size of the angles you created. Now measure them to the nearest degree. How close was your estimate?</p>	

20	<p>Draw a shape with the coordinates $(-5,1)$ $(-4,-1)$ $(-5,-4)$ $(-6,-1)$.</p> <p>Describe the shape you have drawn. Can you create the same shape where all the coordinates will be positive?</p>	<p>You should have ended up with a kite.</p>
21	<p>You are drawing a rectangle. The coordinates you have are $(-3,-1)$, $(-1,-2)$ and $(1,2)$. What are the coordinates for the missing vertex?</p>	<p>$(-1, 3)$</p>
22	<p>Using a coordinate grid (x up to 6 and y up to 6), draw a shape with one line of symmetry and give its coordinates.</p>	<p>You can send me a picture via Showbie.</p>

