

**GRADE 3 – ALL SHAPES AROUND US**

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**Section A: Understanding Shapes & Diagonals (8 Marks)**

1. What is a diagonal? **(2 Marks)**

2. How many diagonals can be drawn in a square? **(1 Mark)**

3. What is the total number of unique diagonals that can be drawn in a pentagon? **(2 Marks)**

4. According to the sources, a circle has how many straight sides and how many corners? **(2 Marks)**

5. What shape has 3 corners and 3 straight sides? **(1 Mark)**

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**Section B: Views & Solid Shapes (6 Marks)**

6. Imagine a refrigerator, which is shaped like a cuboid. How many flat faces does a typical cuboid-shaped refrigerator have? **(2 Marks)**

7. Does a sphere have any corners or flat faces? **(2 Marks)**

8. When looking at a cylinder from its top or bottom, what shape do you see? **(2 Marks)**

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**Section C: Maps & Patterns (6 Marks)**

9. On the map showing Dia's journey to school, how many different buildings (e.g., houses, shops, school) are explicitly shown? **(2 Marks)**

10. Which common geometric shape does the "Park" resemble on the map? **(1 Mark)**

11. On Page 11, there is a tessellation pattern that looks like a honeycomb. What single shape is repeated to form this specific pattern? **(1 Mark)**

12. Based on the concept of Tangrams shown in the sources, are all seven pieces in a standard Tangram set triangles? **(1 Mark)**

13. If you take a square and cut it along its two diagonals, how many triangular pieces would you get? **(1 Mark)**

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**Solutions to the Question Bank:**

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**Section A: Understanding Shapes & Diagonals**

1. A diagonal is defined as a line that joins two opposite corners or non-adjacent vertices of a shape.

2. **2 diagonals** can be drawn in a square.

3. The total number of unique diagonals that can be drawn in a pentagon is **5**.

4. A circle has **0 straight sides** and **0 corners**.

5. A **triangle** has 3 corners and 3 straight sides.

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**Section B: Views & Solid Shapes**

6. A typical cuboid-shaped refrigerator has **6 flat faces** (top, bottom, front, back, left side, right side).

7. No, a sphere **does not have any corners or flat faces**.

8. When looking at a cylinder from its top or bottom, you see a **circle**.

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**Section C: Maps & Patterns**

9. Counting carefully on the map, there are **6 different buildings** shown (Dia's house, the school, the flower shop, the bakery, the toy shop, and the café).

10. The "Park" on the map resembles a **square**.

11. The honeycomb-like tessellation pattern on Page 11 is formed by repeating **hexagons**.

12. No, **not all seven pieces** in a standard Tangram set are triangles. A standard Tangram set also includes a square and a parallelogram.

13. If you take a square and cut it along its two diagonals, you would get **4 triangular pieces**.