Year 2 maths: Sorting shapes and objects (Hard)

Maths · Shapes and space
Level: Hard

Student: _____ Date: _____

Instructions
- There are 10 questions. Read each one carefully.
- Write your answers on this paper. Use the space under a question to work it out.
- A grown-up can read a question aloud — that's fine.
- The answers are at the end. Check them together when you have finished.

Questions

1. Three of these can roll. Which is the odd one out?

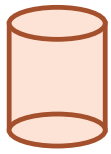
Circle one answer.



○ **A** ○ **B** ○ **C** ○ **D**

2. Jack says, 'A cylinder can roll, so it can't be stacked.' Is he right?

Circle one answer.

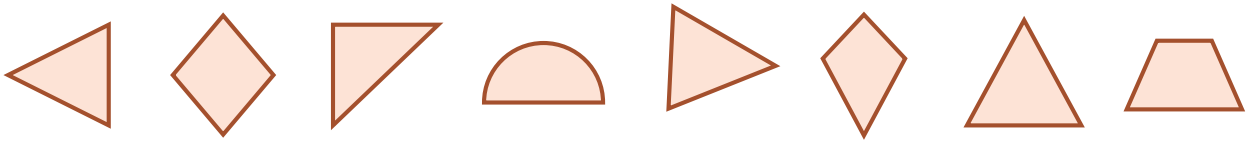


○ **A** Yes. Objects that roll can't be stacked.

○ **B** No. It can stand on a flat end, so it can be stacked.

3. Count the triangles.

Answer: ☐ triangles



Working:

4. Which shape does NOT have 4 corners?

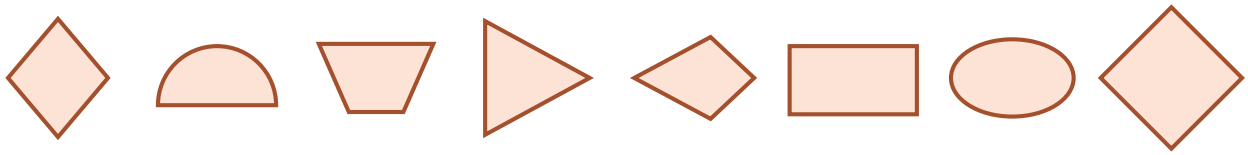
Circle one answer.



○ **A** ○ **B** ○ **C** ○ **D**

5. Sort the shapes: 4 corners and not 4 corners.

Tick the group each one belongs in.

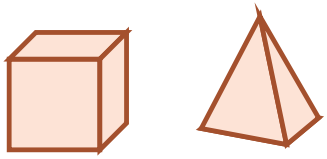


1 **2** **3** **4** **5** **6** **7** **8**

	4 corners	Not 4 corners
Shape 1	☐	☐
Shape 2	☐	☐
Shape 3	☐	☐
Shape 4	☐	☐
Shape 5	☐	☐
Shape 6	☐	☐
Shape 7	☐	☐
Shape 8	☐	☐

6. Ari counts all the corners of a cube and a pyramid. How many corners is that altogether?

Answer: ☐ corners



Working:

7. I am a solid object. I have 5 flat faces and 5 corners. One of my faces is a square. What am I?

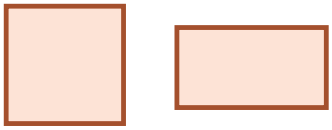
Circle one answer.

○ **A** a pyramid ○ **B** a cube

○ **C** a rectangular prism

8. Which sentences are true about BOTH a square and a rectangle?

Tick every answer that fits.



☐ **A** All their sides are straight.

☐ **B** All their corners are square corners.

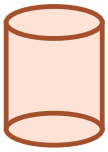
☐ **C** Their opposite sides are the same length.

☐ **D** All 4 of their sides are the same length.

---

9. Kai says, 'A tin of soup has no corners, so it has no edges either.' Is he right?

Circle one answer.



○ **A** Yes. No corners means no edges.

○ **B** No. It has 2 corners, one on the top and one on the bottom.

○ **C** No. It has 2 curved edges, where the top and bottom meet the curved side, but no corners.

---

10. I am a solid object. I have 5 flat faces, 9 edges and 6 corners. Two of my faces are triangles. What am I?

Circle one answer.

○ **A** a cube ○ **B** a pyramid ○ **C** a triangular prism

Answer key

Year 2 maths: Sorting shapes and objects (Hard) · Sheet 477411

1. D

The cylinder, sphere and cone each have a curved surface, so they can roll. The pyramid has only flat faces.

2. B — No. It can stand on a flat end, so it can be stacked.

A cylinder has a curved side and 2 flat ends. It rolls on its side and stacks on its ends, so it can do both.

3. 4 triangles

The 1st, 3rd, 5th and 7th shapes have exactly 3 straight sides: 4 triangles. The diamond, kite and trapezium have 4 sides, and the half circle has a curved edge.

4. C

The half circle has only 2 corners, where its curve meets its straight side. The trapezium, kite and diamond each have 4 corners.

5. Shape 1: 4 corners; Shape 2: Not 4 corners; Shape 3: 4 corners; Shape 4: Not 4 corners; Shape 5: 4 corners; Shape 6: 4 corners; Shape 7: Not 4 corners; Shape 8: 4 corners

The diamond, trapezium, kite, rectangle and turned square each have 4 corners. The half circle has 2, the triangle 3 and the oval none.

6. 13 corners

A cube has 8 corners and a pyramid has 5. 8 + 5 = 13.

7. A — a pyramid

A pyramid has a square face at the bottom and 4 triangle faces: 5 faces. It has 4 corners round the bottom and 1 at the top: 5 corners.

8. A — All their sides are straight.; B — All their corners are square corners.; C — Their opposite sides are the same length.

Both have straight sides, square corners and matching opposite sides. Only the square has 4 equal sides.

9. C — No. It has 2 curved edges, where the top and bottom meet the curved side, but no corners.

A tin is a cylinder. Its flat top and bottom meet the curved side in 2 curved edges. A corner is a point where edges meet, and a curve never comes to a point, so it has no corners.

10. C — a triangular prism

A triangular prism has 2 triangle faces and 3 rectangle faces: 5 faces. It has 3 corners on each triangle: 6 corners, and 9 edges.