Reasoning and Problem Solving
Step 1: Recognise 2D and 3D Shapes

National Curriculum Objectives:

Mathematics Year 2: (2G1a) Compare and sort common 2-D shapes and everyday objects
Mathematics Year 2: (2G1b) Compare and sort common 3-D shapes and everyday objects

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Explain if a statement about 3 shapes is correct. Shapes presented in the same orientation and size. Perspective lines visible on all 3D shapes.
Expected Explain if a statement about 3 shapes is correct. Shapes presented in different orientations and sizes. Perspective lines visible on some 3D shapes.
Greater Depth Explain if a statement about 3 shapes is correct. Shapes presented in different orientations and sizes. No perspective lines visible on 3D shapes, with some use of real-life objects.

Questions 2, 5 and 8 (Problem Solving)
Developing Identify shapes that do not match a given criteria. Shapes presented in the same orientation and size. Perspective lines visible on all 3D shapes.
Expected Identify shapes that do not match a given criteria. Shapes presented in different orientations and sizes. Perspective lines visible on some 3D shapes.
Greater Depth Identify shapes that do not match a given criteria. Shapes presented in different orientations and sizes with some 2D shapes given as the face of a 3D shape. No perspective lines visible on 3D shapes, with some use of real-life objects.

Questions 3, 6 and 9 (Reasoning)
Developing Explain which 2D print a given 3D shape would make. Shapes presented in the same orientation and size. Perspective lines visible on all 3D shapes.
Expected Explain which 3D shape(s) could have made a given 3D print. Shapes presented in different orientations and sizes. Perspective lines visible on some 3D shapes.
Greater Depth Explain which 3D shape(s) could have made a given 2D print. Shapes presented in different orientations and sizes. No perspective lines visible on 3D shapes, with some use of real-life objects.
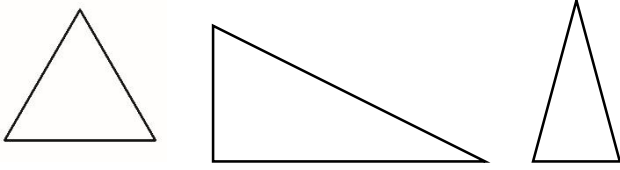
More Year 2 Properties of Shape resources.

Did you like this resource? Don't forget to review it on our website.

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Recognising 2D and 3D Shapes
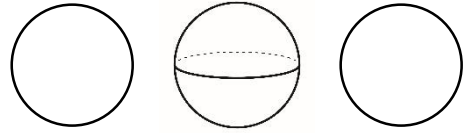
1a. True or false?

Jay says,

> All of these shapes are triangles.

Explain your answer.
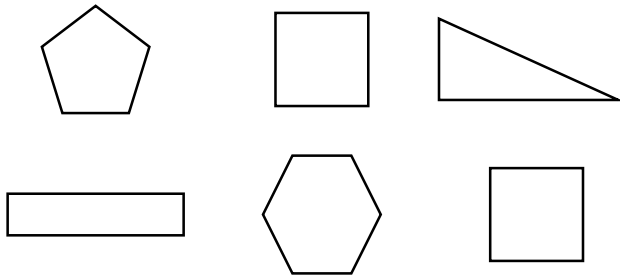
1b. True or false?

Bella says,
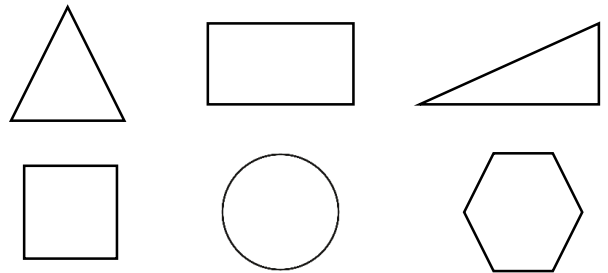
> All of these shapes are circles.

Explain your answer.

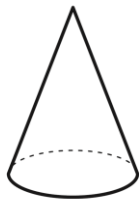**2a. Cross out all of the shapes that are NOT squares.**

2b. Cross out all of the shapes that are NOT triangles.

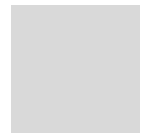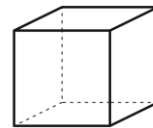**3a. Circle the print that has been made using this 3D shape.**

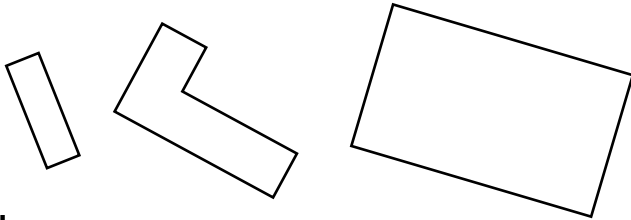Explain your answer.

3b. Circle the print that has been made using this 3D shape.

Explain your answer.

Reasoning and Problem Solving – Recognise 2D and 3D Shapes – Year 2 Developing
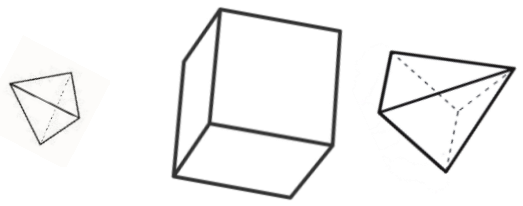
4a. True or false?

Harry says,

All of these shapes
are rectangles.

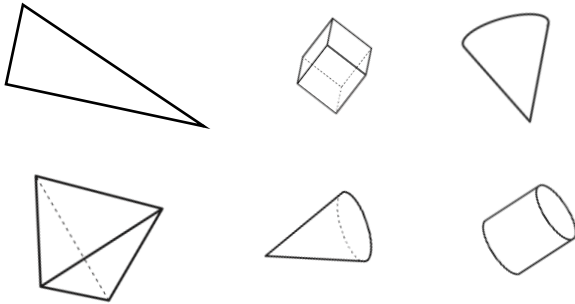Explain your answer.

4b. True or false?

Alice says,

All of the shapes
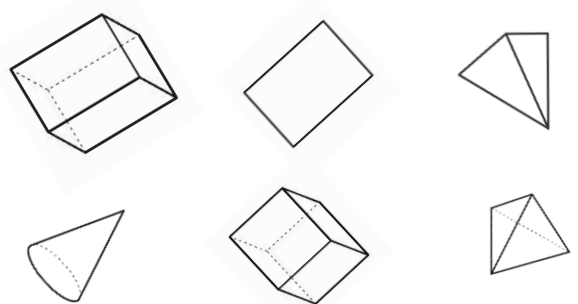are pyramids.

Explain your answer.

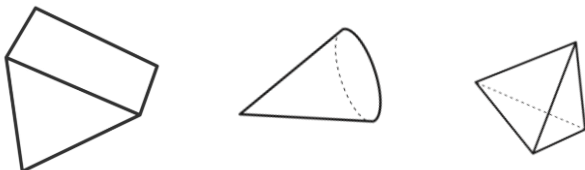**5a.** Cross out all of the shapes that do NOT have circular faces.

5b. Cross out all of the shapes that do NOT have square faces.

6a. Circle all the shapes that could have made this print.

Explain your answer.

6b. Circle all the shapes that could have made this print.

Explain your answer.

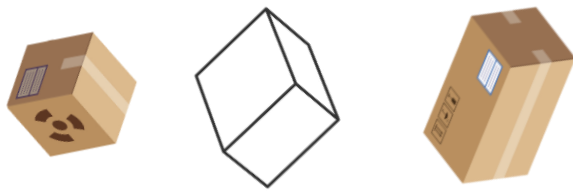**7a.** True or false?

Sven says,

All of these shapes are cylinders.

Explain your answer.
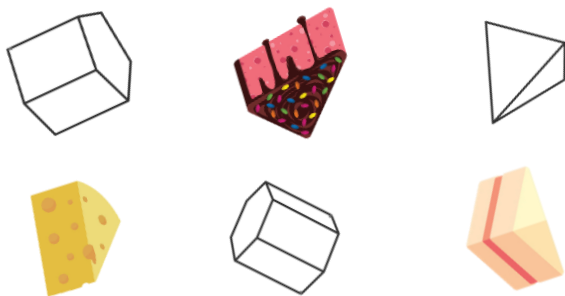
R

7b. True or false?

Paulina says,

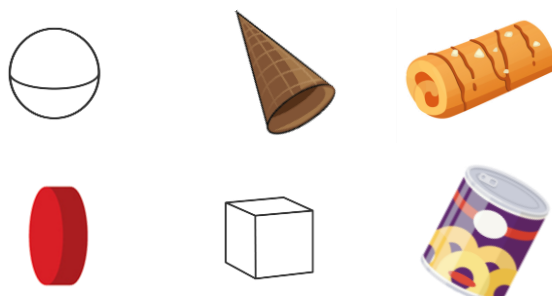All of these shapes are cuboids.

Explain your answer.

R

8a. Cross out all of the shapes that do NOT have triangular faces.

PS

8b. Cross out all of the shapes that do NOT have circular faces.

PS

9a. Circle all the shapes that could have made this print.
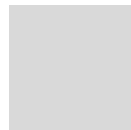
Explain your answer.

R

9b. Circle all the shapes that could have made this print.

Explain your answer.

R

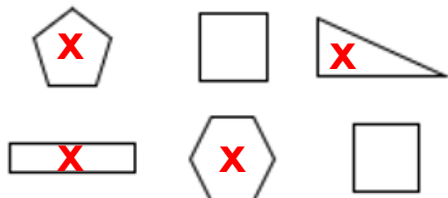# Reasoning and Problem Solving
Recognise 2D and 3D Shapes

Reasoning and Problem Solving
Recognise 2D and 3D Shapes

Developing

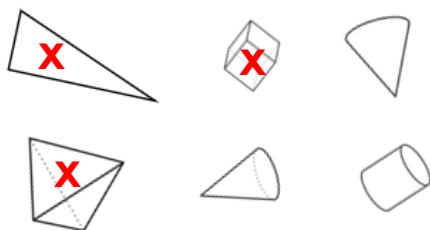**1a.** True. Various answers, for example: All of the shapes have 3 sides.

2a.

3a. Circle

Expected

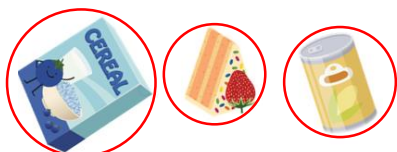**4a.** False. Various answers, for example: The shape in the middle is an irregular hexagon.

5a.

6a.

Greater Depth

7a. True. Various answers, for example: All three shapes are cylinders of different sizes and orientations.
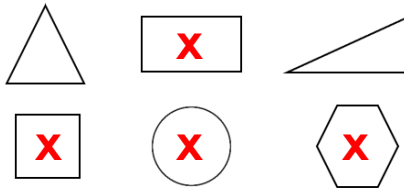
8a.

9a.

Developing

1b. False. Various answers, for example: The middle shape is a 3D sphere, not a 2D circle.
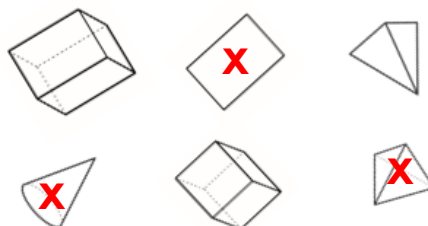
2b.
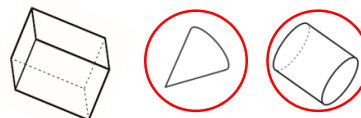

3b. Square

Expected

4b. False. Various answers, for example: The middle shape is a cube.
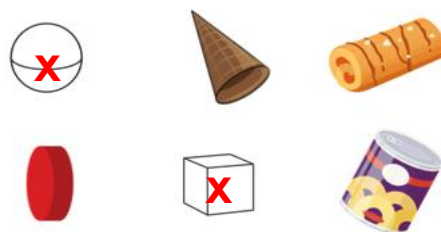
5b.

6b.

Greater Depth

7b. True. Various answers, for example: All three shapes are cuboids of different sizes and orientations.

8b.

9b.

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