

Name _____



TEKS Geometry and
Measurement—1.6.B,
1.6.E

MATHEMATICAL PROCESSES
1.1.B, 1.1.D, 1.1.E, 1.1.F

15.4 PROBLEM SOLVING • Three-Dimensional Solids



Essential Question

How can making a model help you identify and describe three-dimensional solids?



Unlock the Problem



Emma wants to draw an object for this riddle.

I am a toy.
I have only a curved surface.

Read

What information am I given?

The object is a toy with only a _____ surface.

Plan

What is my plan or strategy?

I can _____.

Solve

Show how you solve the problem.

I look at the solids that have a curved surface.



A sphere has only a curved surface.

A ball is a toy that is a sphere.



HOME CONNECTION • Your child solved this problem by looking at models of three-dimensional solids and finding a model with only a curved surface.

Try Another Problem

Draw an object for the riddle. Use models of solids to help you.

- What information am I given?
- What is my plan or strategy?

1.

I am a block.
I have 6 faces that are squares.
Draw me.

2.

I am a hat.
I have 1 flat surface.
I have 1 curved surface.
Draw me.

3.

I am a box.
I have 2 faces that are squares.
I have 4 faces that are rectangles.
Draw me.



Math Talk

Mathematical Processes

How does making a model help you solve a riddle?



Share and Show



Draw an object for the riddle. Use models of solids to help you.

4.

I am a can.
I have 2 flat surfaces.
I have 1 curved surface.
Draw me.

Problem Solving

5.



I am a box.
I have 2 faces that are triangles.
I have 3 faces that are rectangles.
Draw me.

6.



Multi-Step

I am a block.
I have 6 faces.
I have 8 vertices.
Draw two different blocks I could be.

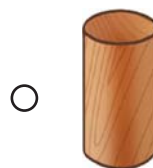
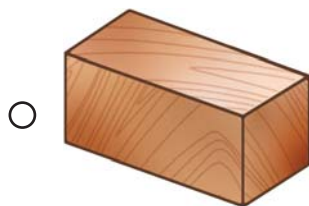


Choose the correct answer.

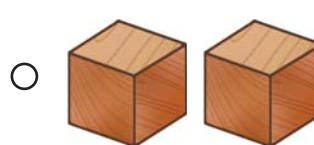
7. **Analyze** Tim has a toy that is shaped like a sphere. Which toy does Tim have?



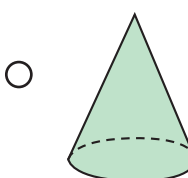
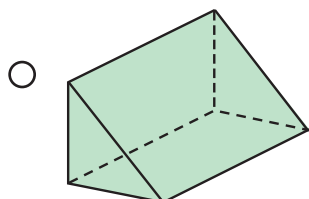
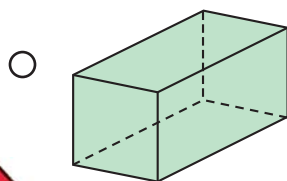
8. Mari picks a block with flat and curved surfaces. Which block does she pick?



9. **Multi-Step** David puts two blocks together to make a rectangular prism. Which blocks does David use?



10. ★ **TEXAS Test Prep** Which solid is a triangular prism?



HOME CONNECTION • Have your child explain how he or she solved one of the problems in this lesson.



Name _____

15.4 PROBLEM SOLVING • Three-Dimensional Solids

Draw an object for the riddle.

1.

I have a curved surface.
I have no flat surfaces.
Draw me.

2.

I am a block.
I have 1 flat surface.
I have 1 curved surface.
Draw me.

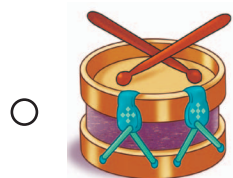
Problem Solving

3.

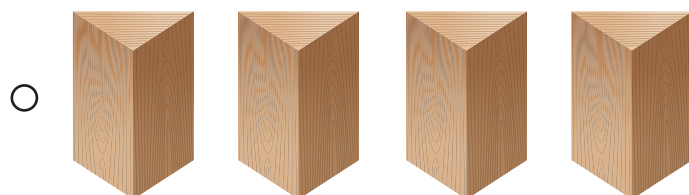
I am a block.
I have 3 faces that are rectangles.
I have 2 faces that are triangles.
Draw me.

Choose the correct answer.

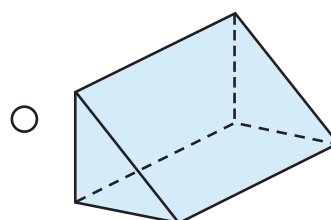
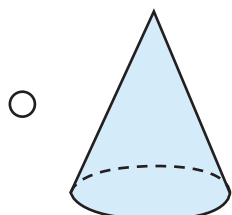
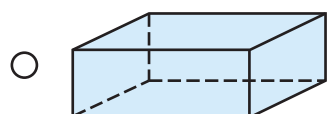
4. Wendy finds a toy that is shaped like a cube. Which toy does Wendy find?



5. **Multi-Step** Winston puts four blocks together to make a tall cylinder. Which blocks does Winston use?



6. Which solid is a rectangular prism?





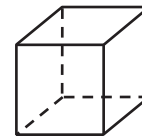
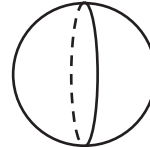
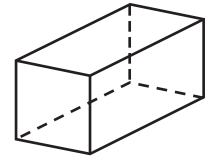
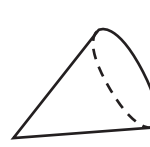
Module 15 Assessment

Vocabulary

1. Color the **cube** with . (p. 558)

2. Color the **cone** with . (p. 552)


3. Color the **cylinder** with . (p. 552)




Concepts and Skills

4. Circle the objects you could trace to draw the shape.  TEKS 1.6.E



5. Circle the object below that has only a curved surface.  TEKS 1.6.E

6. Draw a line under the objects below that have both curved and flat surfaces.  TEKS 1.6.E




7. Which number completes the sentence?

A rectangular prism has ? faces.  TEKS 1.6.E

☐ 8

☐ 6

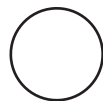
☐ 4

8. Which shape can you draw if you trace around a flat surface of a cube?  TEKS 1.6.E

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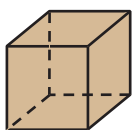


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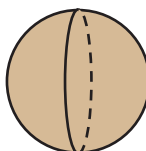


9. Which solid has 6 faces?  TEKS 1.6.E

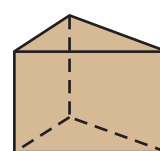
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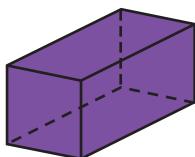


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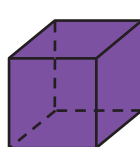


10. Which solid has 6 vertices?  TEKS 1.6.E

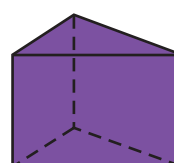
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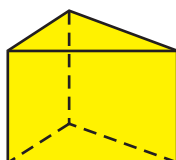
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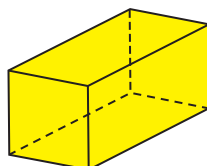
11. Which solid matches the riddle?  TEKS 1.6.E

I am a block.
I have 8 vertices.
I have 12 edges.

☐



☐



☐

