
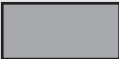

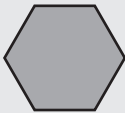
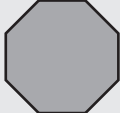






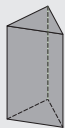
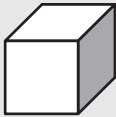
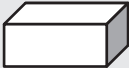
# Learn About

## Using Geometry: Plane Figures and Solid Figures

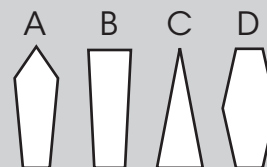
**Plane figures** are flat. **Polygons** are plane figures named for their number of sides. Circles are plane figures, but they are not polygons because they do not have sides or angles.

Polygons				
Triangle  3 sides 3 angles	Quadrilateral  4 sides 4 angles	Pentagon  5 sides 5 angles	Hexagon  6 sides 6 angles	Octagon  8 sides 8 angles

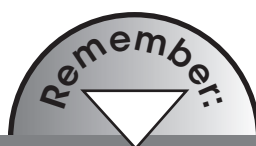
**Solid figures** are not flat. The sides on a solid figure are called **faces**. Two faces meet at an **edge**.

Solid Figures						
Sphere  0 faces 0 edges	Cone  1 face 0 edges	Cylinder  2 faces 0 edges	Triangular Pyramid  4 faces 6 edges	Triangular Prism  5 faces 9 edges	Cube  6 faces 12 edges	Rectangular Prism  6 faces 12 edges

Sean has a sign in his room shaped like a pentagon. Which of these figures has the same shape as his sign?



A pentagon has 5 sides. Figure A has 5 sides. **Figure A** is shaped like Sean's sign.



**Plane figures** are flat. **Polygons** are plane figures named for their number of sides. **Solid figures** are not flat. The sides on a solid figure are called **faces**. Two faces meet at an **edge**.

*Look at the answer choices for each question.  
Read why each answer choice is correct or  
not correct.*

**1. What is the area of the base of the box?**

**Ⓐ 32 square centimetres**

This answer is not correct. The area of the base is the product of the length multiplied by the width. It is not the sum of the length and width.  $20 \times 12 = 240 \text{ cm}^2$ , not  $32 \text{ cm}^2$ .

**Ⓑ 100 square centimetres**

This answer is not correct. The area of the base is the product of the length multiplied by the width.  $20 \times 12 = 240 \text{ cm}^2$ , not  $100 \text{ cm}^2$ .

**● 240 square centimetres**

This answer is correct. The area of the base is the product of the length multiplied by the width.  $20 \times 12 = 240 \text{ cm}^2$ .

**Ⓓ 1200 square centimetres**

This answer is not correct. The area of the base is the product of the length multiplied by the width.  $20 \times 12 = 240 \text{ cm}^2$ , not  $1200 \text{ cm}^2$ .

**2. What is the volume of the box?**

**Ⓐ 37 cubic centimetres ( $\text{cm}^3$ )**

This answer is not correct because the volume of a rectangular prism is equal to the product of the length multiplied by the width multiplied by the height. It is not the sum of the length, width and height.  $20 \times 12 \times 5 = 1200 \text{ cm}^3$ , not  $37 \text{ cm}^3$ .

**Ⓑ 240 cubic centimetres ( $\text{cm}^3$ )**

This answer is not correct because the volume of a rectangular prism is equal to the product of the length multiplied by the width multiplied by the height.  $20 \times 12 \times 5 = 1200 \text{ cm}^3$ , not  $240 \text{ cm}^3$ .

**Ⓒ 720 cubic centimetres ( $\text{cm}^3$ )**

This answer is not correct because the volume of a rectangular prism is equal to the product of the length multiplied by the width multiplied by the height.  $20 \times 12 \times 5 = 1200 \text{ cm}^3$ , not  $720 \text{ cm}^3$ .

**● 1200 cubic centimetres ( $\text{cm}^3$ )**

This answer is correct because the volume of a rectangular prism is equal to the product of the length multiplied by the width multiplied by the height.  $20 \times 12 \times 5 = 1200 \text{ cm}^3$

# Lesson

# 2

*Read the passage.  
Then do Numbers 1–5.*

## Spinning Your Wheels

Megan and her younger sister, Kerry, have new bikes. Megan's bike is red with eighteen speeds. Kerry's bike is blue with three speeds. The diameter of Megan's bike wheels is 66 centimetres. The diameter of the wheels on Kerry's bike is 46 centimetres.



1. Each spoke goes from about the centre of the wheel to the edge of the wheel. About how long are the spokes in the wheels of Megan's bike?

- (A) 66 centimetres
- (B) 46 centimetres
- (C) 33 centimetres
- (D) 26 centimetres

2. About how long are the spokes in the wheels of Kerry's bike?

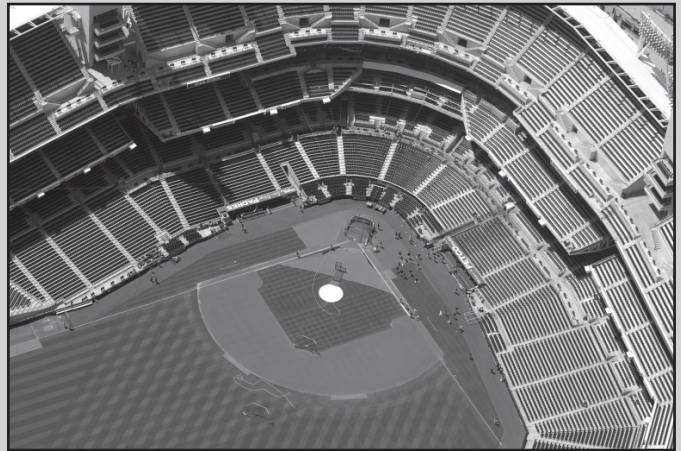
- (A) 46 centimetres
- (B) 33 centimetres
- (C) 23 centimetres
- (D) 13 centimetres

# Lesson 19

*Read the passage.  
Then do Numbers 1–5.*

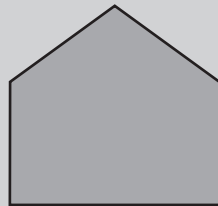
## *At the Baseball Match*

The Watson family went to a baseball game. Dennis loves baseball. He collects the cards of all of his favourite players. His younger sister, Diane, was just learning about the game. She enjoyed the sunshine and the snacks. She was also amazed at all of the different shapes that she saw on the field.



1. Diane noticed that home plate has an interesting shape, as shown below. What shape is it?

- (A) triangle
- (B) pentagon
- (C) hexagon
- (D) octagon



2. Consecutive bases are 27 metres apart. The paths between the bases form right angles. What shape is formed by the path around the four bases?

- (A) triangle
- (B) square
- (C) pentagon
- (D) hexagon

# Self-Assessment 2

Lessons 6–10

*Answer these questions after you have completed Lessons 6–10. Before you begin, re-read what you wrote in Self-Assessment 1.*

## **FOCUS on Using Geometry, Book E**

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Rate your work in Lessons 6–10. Circle your answer.

successful

somewhat successful

needs improvement

2. Did any of the questions give you trouble? \_\_\_\_\_

If so, what kind of trouble did you have?

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Is this the same kind of trouble you had in Lessons 1–5? \_\_\_\_\_

3. Did you find the questions easier or more difficult than those in Lessons 1–5?

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Why do you think this is so?

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4. Did you meet the goal you set for yourself for Lessons 6–10? \_\_\_\_\_

Why or why not?

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5. What is your goal for Lessons 11–15?

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Cut along the dotted line.