



# Perimeter, Area, and Surface Area

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Grade: Grade 5

## Part A: Multiple Choice

Circle the best answer for each question.

1. A box measures 2.5 ft by 3 ft by 4 ft. What is its volume?

- A) 30 cubic feet
- B) 24 cubic feet
- C) 9.5 cubic feet
- D) 27 cubic feet

2. Prism A is 4 by 5 by 6 and Prism B is 3 by 4 by 10. Which has greater volume?

- A) Prism A only
- B) Prism B (120 cubic units vs 120)
- C) Both equal at 120 cubic units
- D) Cannot be determined

3. A cube has side length one half ft. What is its volume?

- A) 1 cubic foot
- B) 0.125 cubic feet
- C) 0.25 cubic feet
- D) 1.5 cubic feet

4. Box A holds 24 cubic in; box B has dimensions 2 by 3 by 5 in. How much more does box B hold?

- A) 6 cubic inches less than A
- B) Same as A, 24 cubic in
- C) 30 cubic inches more total
- D) 6 cubic inches more than A

## Part B: Fill in the Blank

Write the correct answer on each line.

1. A prism with base area 12 sq ft and height 0.5 ft has volume \_\_\_\_\_ cubic feet.
2. A cube with side 3 ft has surface area \_\_\_\_\_ square feet (6 times s squared).
3. A box 2 by 4 by 5 in needs paint on all faces; surface area is \_\_\_\_\_ square inches.
4. A 1 by 1 by 1 ft cube fits inside a 2 by 2 by 2 ft cube; the empty space is \_\_\_\_\_ cubic feet.
5. If only 3 of 6 faces of a 4 by 4 by 4 ft cube are painted, painted area is \_\_\_\_\_ square feet.

### Part A: Multiple Choice

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1. A box measures 2.5 ft by 3 ft by 4 ft. What is its volume?

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- A) 6 cubic inches less than A
- B) Same as A, 24 cubic in
- C) 30 cubic inches more total
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### Part B: Fill in the Blank

Write the correct answer on each line.

1. A prism with base area 12 sq ft and height 0.5 ft has volume 6 cubic feet.
2. A cube with side 3 ft has surface area 54 square feet (6 times s squared).
3. A box 2 by 4 by 5 in needs paint on all faces; surface area is 76 square inches.
4. A 1 by 1 by 1 ft cube fits inside a 2 by 2 by 2 ft cube; the empty space is 7 cubic feet.
5. If only 3 of 6 faces of a 4 by 4 by 4 ft cube are painted, painted area is 48 square feet.