



Area and Perimeter (Advanced)

Name: _____

Date: _____

Grade: Grade 4

Part A: Multiple Choice

Circle the best answer for each question.

1. A rectangular garden has a fixed perimeter of 24 ft. Which dimensions maximize its area?

- A) 6 ft by 6 ft
- B) 8 ft by 4 ft
- C) 10 ft by 2 ft
- D) 11 ft by 1 ft

2. What is the area of an 8 ft by 4 ft garden built with a 24 ft fence?

- A) 32 square ft
- B) 24 square ft
- C) 36 square ft
- D) 48 square ft

3. If you stretch the garden to 11 ft by 1 ft, the perimeter is still 24 ft. What is the area?

- A) 11 square ft
- B) 22 square ft
- C) 12 square ft
- D) 24 square ft

4. Why does a 6 ft by 6 ft square give the maximum area for a 24 ft fence?

- A) Equal dimensions create the largest rectangular area for a fixed perimeter.
- B) Squares always have a smaller area than long rectangles.
- C) Perimeter and area are always equal for squares.
- D) Multiplying by 1 always gives the largest answer.

Part B: Fill in the Blank

Write the correct answer on each line.

1. To maximize area with a 24 ft fence, choose a square garden with side _____ ft.
2. A 6 ft by 6 ft garden has an area of _____ square ft.
3. A 7 ft by 5 ft rectangle uses 24 ft of fence and has an area of _____ square ft.
4. The closer a rectangle's dimensions are to _____, the larger its area for a fixed perimeter.
5. Area is reported in _____ ft because it covers a two-dimensional surface.

Part A: Multiple Choice

Circle the best answer for each question.

1. A rectangular garden has a fixed perimeter of 24 ft. Which dimensions maximize its area?

- A) 6 ft by 6 ft
- B) 8 ft by 4 ft
- C) 10 ft by 2 ft
- D) 11 ft by 1 ft

2. What is the area of an 8 ft by 4 ft garden built with a 24 ft fence?

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3. If you stretch the garden to 11 ft by 1 ft, the perimeter is still 24 ft. What is the area?

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4. Why does a 6 ft by 6 ft square give the maximum area for a 24 ft fence?

- A) Equal dimensions create the largest rectangular area for a fixed perimeter.
- B) Squares always have a smaller area than long rectangles.
- C) Perimeter and area are always equal for squares.
- D) Multiplying by 1 always gives the largest answer.

Part B: Fill in the Blank

Write the correct answer on each line.

1. To maximize area with a 24 ft fence, choose a square garden with side 6 ft.
2. A 6 ft by 6 ft garden has an area of 36 square ft.
3. A 7 ft by 5 ft rectangle uses 24 ft of fence and has an area of 35 square ft.
4. The closer a rectangle's dimensions are to equal, the larger its area for a fixed perimeter.
5. Area is reported in square ft because it covers a two-dimensional surface.