TABE Math-E

PAXEN

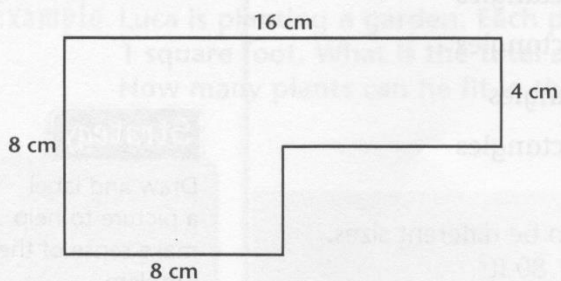## Unit-6 Geometry
CHAPTER REVIEW

Revised: November 4, 2023
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Some graphics may not have copied well during the scan process.
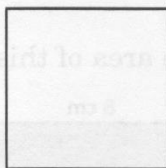
Math-E - Unit-6 – Lesson Review

Read each question. Select the correct answer.

1. What is the area of the shape?

16 cm

4 cm

8 cm

8 cm

- **A.** 48 cm²
- **B.** 64 cm²
- **C.** 96 cm²
- **D.** 128 cm²

2. What is the name of the shape? Select the four that apply.

- **A.** rectangle
- **B.** rhombus
- **C.** trapezoid
- **D.** pentagon
- **E.** square
- **F.** quadrilateral

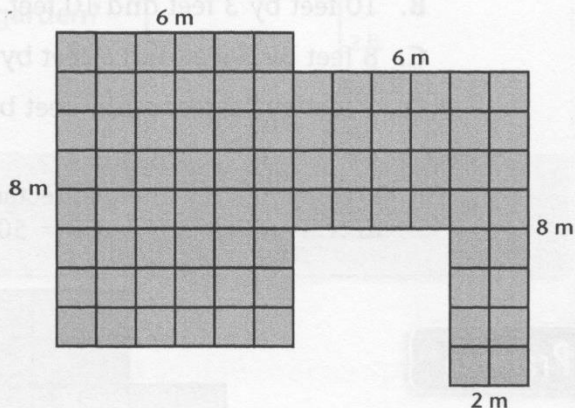**3.** A shape that has four angles, four sides, and no right angles is best described as what?

- **A.** square
- **B.** rectangle
- **C.** hexagon
- **D.** quadrilateral

4. Jamie needs a fence around his yard. What will be the perimeter of the fence?

27 m

16 m

8 m

8 m
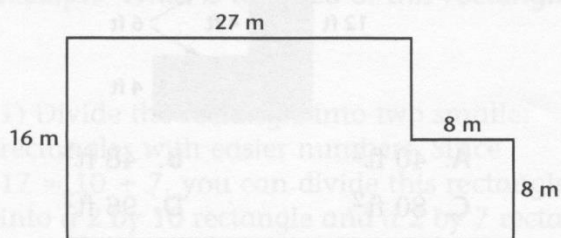
- **A.** 59 meters
- **B.** 86 meters
- **C.** 102 meters
- **D.** 432 meters

5. The diagram shows the first floor of a building. What is the area?

6 m

6 m

8 m

8 m

2 m

- **A.** 44 m²
- **B.** 80 m²
- **C.** 96 m²
- **D.** 144 m²

6. A three-dimensional object has 6 equal faces and 12 edges. Which of the following could it be?

- **A.** square
- **B.** pyramid
- **C.** circle
- **D.** cube

7. Shaniqua moves into a new apartment with a friend. Bedroom A is 12 ft × 8 ft. Bedroom B is 9 ft × 11 ft. Shaniqua wants the bigger room. Which room is bigger?

- **A.** Bedroom A is bigger.
- **B.** Bedroom B is bigger.
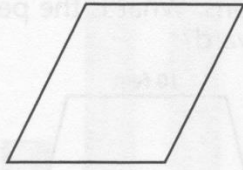- **C.** The rooms are the same size.
- **D.** There is not enough information.

8. What is the length of side Y?

32 ft

Y

14 ft

12 ft

12 ft
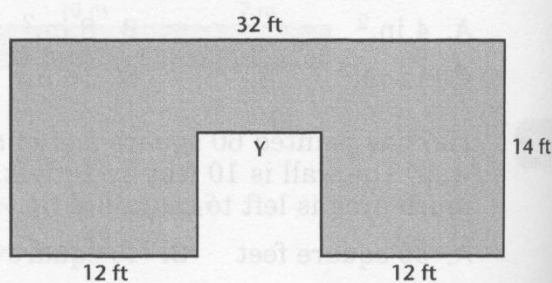
- **A.** 8 feet
- **B.** 12 feet
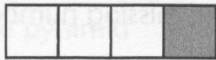- **C.** 14 feet
- **D.** 32 feet

2

9. What is the figure?

A. triangle

B. trapezoid

C. square

D. rhombus

10. A park shows these dimensions. What is the total perimeter?

32 feet

6 feet

10 feet

10 feet
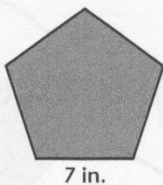
9 feet

11 feet
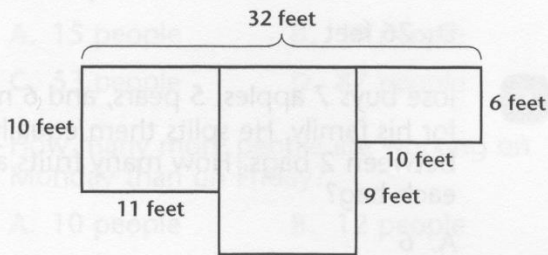
A. 78 ft   B. 86 ft

C. 92 ft   D. 94 ft

11. Which best describes the shaded region?
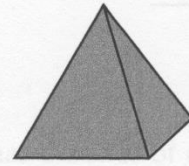
A. $\frac{1}{4}$ B. $\frac{1}{3}$

C. $\frac{1}{2}$ D. 1

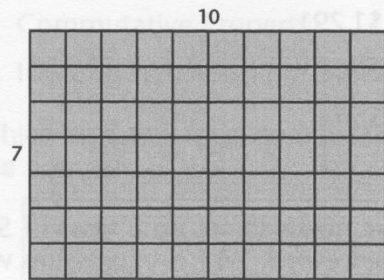**12.** What is the perimeter of the figure?

7 in.

A. 7 inches   B. 28 inches

C. 35 inches   D. 49 inches

13. How many faces does the square pyramid have?

A. 2   B. 3

C. 4   D. 5

14. Which equations correctly define the figure?

10

7

A. Area = 7 × 10; Perimeter = 10 + 7

B. Area = 7 × 10;
   Perimeter = 2 × (10 + 7)

C. Area = 2 × (7 × 10);
   Perimeter = 2 × (7 + 10)

D. Area = 7 × 10;
   Perimeter = (2 + 10) + (2 + 7)

15. What is the name for a shape that has three angles and three sides?

A. pyramid   B. pentagon

C. heptagon   D. triangle

16. Which equation accurately describes the area of the rectangle?

5   4

4
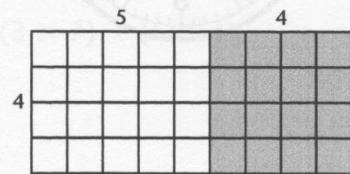
A. 4 × 5 + 4 = (4 × 5) + (5 × 4)

B. 4 × (5 + 4) = (4 × 5) + (4 × 4)

C. 4 + (5 × 4) = (4 + 5) × (4 + 4)

D. 2 × (4 + 5 + 4) = (2 × 4) + (2 × 5) + (2 × 4)

1. **C.** Divide the figure to find the length of a missing side. Then $(8 \times 8) + (8 \times 4) = 96$ square centimeters. 3.MD.7.d

2. **A, B, E, F.** The shape has four sides, four right angles, and four equal sides. A square is also a rectangle, rhombus, and quadrilateral. 3.G.1

3. **D.** With no right angles, the best option for a figure with four sides and four angles is a quadrilateral. 2.G.1

4. **C.** Find the length of both missing sides. You can find the base by using $27 + 8 = 35$. You can find the missing vertical side by using $16 - 8 = 8$. The perimeter is equal to $16 + 35 + 8 + 8 + 8 + 27 = 102$ meters. 3.MD.8

5. **B.** Count the tiles, or divide the figure and use multiplication and addition to find and combine the total area. 3.MD.5.b, 3.MD.7.d

6. **D.** A square and a circle are not three-dimensional objects, and a pyramid's base is not equal to its side faces. 2.G.1

7. **B.** The area of Bedroom A = $12 \times 8 = 96$ square feet. The area of Bedroom B = $9 \times 11 = 99$ square feet. 3.MD.7.b

8. **A.** $12 + 12 = 24$. $32 - 24 = 8$ feet. 3.MD.8

9. **D.** A rhombus has four equal sides and two pairs of parallel sides. 3.G.1

10. **D.** $10 + 32 + 6 + 10 + 9 + 11 + 5 + 11 = 94$ feet. 3.MD.8

11. **A.** One out of four regions, or one fourth, of the figure is shaded. 3.G.2

12. **C.** $7 \times 5 = 35$ inches. 3.MD.8

13. **D.** A square pyramid has a square base and four triangular faces. 2.G.1

14. **B.** The area of a rectangle is the product of its length and width: 7×10. The perimeter is twice the sum of the length and width: $2 \times (10 + 7)$. 3.MD.7.a, 3.MD.8

15. **D.** A three-sided figure is a triangle. 2.G.1

16. **B.** The width is 4. The length is $(5 + 4)$. Use the Distributive Property. 3.MD.7.c

Math-E - Unit-6 – Practice Review

1. Which two shapes have more than four angles?

   A. triangle

   B. square

   C. hexagon

   D. pentagon

   E. trapezoid

   F. quadrilateral

2. Which of these describes a square pyramid?

   A. four triangular faces and one square face

   B. six square faces

   C. six rectangular faces

   D. two triangular faces and three rectangular faces

Which shape always has two pairs of parallel sides?

   A. triangle   B. polygon

   C. rhombus   D. trapezoid

4. Which shape is a quadrilateral that always has four right angles?

   A. parallelogram

   B. trapezoid

   C. rhombus

   D. rectangle

Area = length × width

Perimeter = sum of all sides

5. The perimeter of a rectangle is the same as its area. What are the dimensions of the rectangle?

   A. 6 cm × 3 cm

   B. 8 yd × 6 yd

   C. 7 in. × 5 in.

   D. 9 ft × 7 ft

Use this diagram to answer question 6. Each square unit in the drawing represents one square foot.
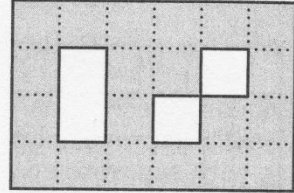
6. Part A

   What is the area of the entire bulletin board?

   A. 16 square feet   B. 20 square feet

   C. 24 square feet   D. 28 square feet

   Part B

   A drawing shows the arrangement of community notices currently posted and the available space on a bulletin board. What is the area of the shaded part of the bulletin board?

   A. 3 square feet   B. 4 square feet

   C. 16 square feet   D. 20 square feet

Use this diagram to answer question 7.
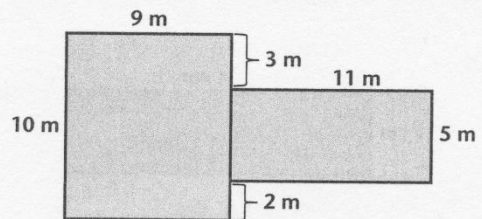
7. Part A

   What is the area of the shape?

   A. 112 m^2 B. 123 m^2

   C. 145 m^2 D. 270 m^2
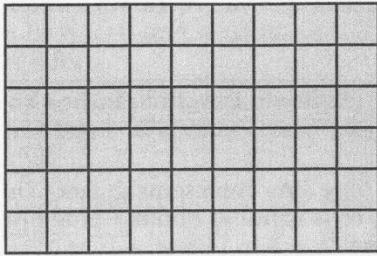
   Part B

   What is the perimeter of the shape?

   A. 70 m   B. 60 m

   C. 50 m   D. 40 m

Math-E - Unit-6 – Practice Review

8. Each square unit represents one square yard. Which statement about the rectangle is true?

A. The area is 54 square yards because $6 \times 9 = 54$.

B. The area is 15 square yards because $6 + 9 = 15$.

C. The area is 30 square yards because $2 \times (6 + 9) = 30$.

D. The area is 30 square yards because $6 + 6 + 9 + 9 = 30$.

9. A case for a tablet is nine inches long and five inches wide. What is the area of the tablet case?

A. 14 square inches

B. 19 square inches

C. 45 square inches

D. 54 square inches

10. Nichelle spaces corn in her garden by planting one seed per square foot. She uses 42 seeds. Which could be the dimensions of Nichelle's garden?

A. 5 feet wide by 8 feet long

B. 4 feet wide by 6 feet long

C. 6 feet wide by 7 feet long

D. 4 feet wide by 9 feet long

11. Fadil fertilizes a patch of lawn that measures 12 meters by 10 meters. He runs out of fertilizer after 30 square meters. What is the area of the lawn that still needs to be fertilized?
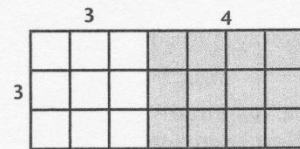
A. 60 m^2 B. 70 m^2

C. 80 m^2 D. 90 m^2

12. Brooke washes windowpanes separated by molding. The gray square represents a clean windowpane. What part of the window's area is clean?
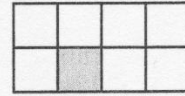
A. 1   B. $\frac{1}{4}$

C. $\frac{1}{6}$ D. $\frac{1}{8}$

**13.** Which equation accurately describes the area of the rectangle?

A. $2 \times (3 + 4) = (2 \times 3) + (2 \times 4)$

B. $3 \times (3 + 4) = (3 \times 3) + (3 \times 4)$

C. $3 \times (3 \times 4) = (3 \times 3) + (3 \times 4)$

D. $3 \times (3 + 4) = (3 + 3) \times (3 + 4)$

14. A community center has a gathering room that is 12 feet long and 8 feet wide. What is the area of the room?

A. 96 square feet

B. 86 square feet

C. 80 square feet

D. 68 square feet

15. Benita cuts out a piece of cardboard for a craft in her class with disabled students. What is the area of the cardboard?
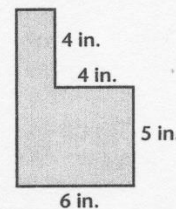
A. 46 in.^2 B. 38 in.^2

C. 36 in.^2 D. 28 in.^2

Math-E - Unit-6 – Practice Review

pp. 40–41

1. C, D. A hexagon has 6 sides and 6 angles. A pentagon has 5 sides and 5 angles. 2.G.1

2. A. A square pyramid has a square base and 4 triangular sides. 2.G.1

3. C. A rhombus has 2 pairs of parallel sides. 3.G.1

4. D. A rectangle always has 4 sides and 4 right angles. 3.G.1

5. A. 6 cm × 3 cm = 18 cm^2 and
6 cm + 6 cm + 3 cm + 3 cm = 18 cm. 3.MD.8

6. **Part A: C.** The area of the entire bulletin board is 4 ft × 6 ft, or 24 ft^2. 3.MD.7.a

   Part B: D. The entire bulletin board is 24 square feet. To find the area of shaded part, subtract the area of the notices from the area of the entire bulletin board: 24 − 2 − 1 − 1 = 20. The area of the shaded part is 20 square feet. 3.MD.5.b

7. **Part A: C.** The shape can be divided into 2 rectangles. 10 m × 9 m = 90 m^2; 11 m × 5 m = 55 m^2; 90 m^2 + 55 m^2 = 145 m^2. 3.MD.7.d

   Part B: B. 10 + 9 + 3 + 11 + 5 + 11 + 2 + 9 = 60 meters. 3.MD.8

8. A. The area of a rectangle is the product of its length and width: 6 yd × 9 yd = 54 yd^2. 3.MD.7.a

9. C. 9 × 5 = 45; The area of the case is 45 square inches. 3.MD.7.b

10. C. If Nichelle plants 1 seed per square foot and plants 42 seeds, the area of the garden is 42 square feet. The product of the length and width of the garden must be 42: 6 × 7 = 42. The garden is 6 feet wide by 7 feet long. 3.MD.7.a

11. D. 12 × 10 = 120 m^2. 120 − 30 = 90 m^2. An area of 90 square meters still needs to be fertilized. 3.MD.7.d

12. D. The window has 8 square units. One square unit is $\frac{1}{8}$ of the window's area. So, $\frac{1}{8}$ of the window's area is clean. 3.G.2

13. B. The width is 3. The length is (3 + 4). Use the Distributive Property to find the area: 3 × (3 + 4) = (3 × 3) + (3 × 4). 3.MD.7.c

14. A. The area is 12 × 8 = 96 ft^2. 3.MD.7.b

15. B. The shape can be divided into 2 rectangles. 6 in. × 5 in. = 30 in.^{2}; 4 in. × 2 in. = 8 in.^{2}; 30 in.^{2} + 8 in.^{2} = 38 in.^{2}. The area of the cardboard is 38 square inches. 3.MD.7.d