

# Answers to Course 1 Unit 5 Practice

## LESSON 22-1

- Yes;  $6 + 6 > 6$ ; equilateral
  - No;  $4 + 4 < 9$
  - Yes;  $4 + 8 > 9$ ; scalene
  - No;  $3 + 4 < 12$
- A
- Sample answer: The minimum length of the third side is 4 centimeters ( $12 + 4 > 15$ ) and the maximum length is 27 centimeters ( $12 + 15 > 21$ ). So the length of the third side must be at least 4 cm and no more than 27 cm.
  - It can be an isosceles triangle (if the third side is 12 or 15 cm) or scalene (any other length greater than or equal to 4 and less than or equal to 27 cm).
- The triangle is scalene;  $12 + 13 > 14$  and the side lengths are all different.
- C

## LESSON 22-2

- A
- scalene
  - isosceles
  - equilateral
  - scalene
- Check students drawings. The triangle will be isosceles, right.
- $60^\circ$ , acute, equilateral
  - $80^\circ$ , acute
  - $90^\circ$ , right
- D

## LESSON 23-1

- square
  - rectangle
  - rhombus

- A
- 15 inches
- $30^\circ$
- B

## LESSON 23-2

- area = 240 square inches; perimeter = 64 inches
  - area = 144 square centimeters; perimeter = 56 centimeters
  - area = 106 square centimeters; perimeter = 56 centimeters
- 36 square feet
- C
- D
- Area of each wall is 112 square feet;  
 $8 \text{ walls} \times 112 = 896$  square feet for a single coat.  
 $896/300 \approx 3$  cans of paint  $\times 2$  coats  
= 6 cans of paint.  
 $896/200 \approx 5$  cans of primer  
Sandra needs 6 cans of paint and 5 cans of primer.

## LESSON 23-3

- 120 square centimeters
  - 990 square centimeters
  - 36 square feet
- The height is 31 inches.

$$A = \frac{1}{2}bh$$

$$279 = \frac{1}{2}18h$$

$$279 = 9h$$

$$31 = h$$

- C
- A

25. 329.5 square feet

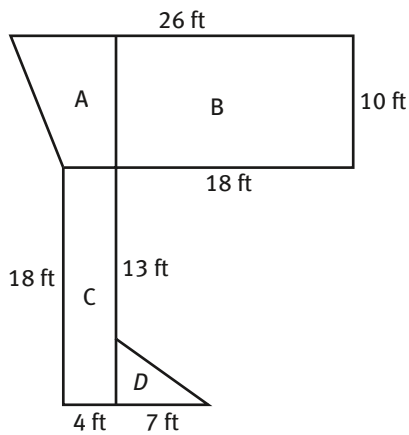
$$A = \frac{10}{2}(8 + 4)$$

$$= 60$$

$$= 18(10) = 180$$

$$C = 18(4) = 72$$

$$D = \frac{1}{2}7(5) = 17.5$$



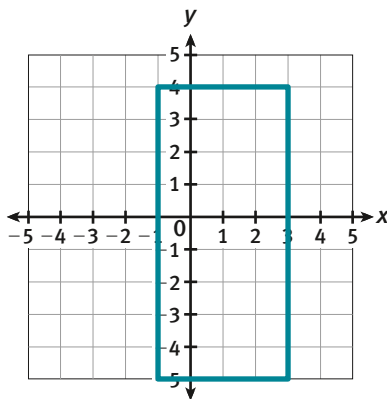
### LESSON 24-1

26. a. 6 units

b. 5 units

27. D

28. a.



b. 9 units

c. 4 units

d. 36 units<sup>2</sup>

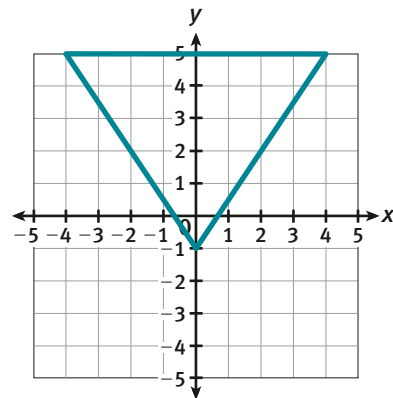
29. C

30. 36 square units

### LESSON 24-2

31. B

32. a.



b. 8 units

c. 6 units

d. 24 square units

33. C

34. a. 4 units and 8 units

b. 5 units

c. 30 square units

35. \$29.40

### LESSON 25-1

36. a. 64 in.<sup>2</sup>

b. 6

c. 384 in.<sup>2</sup>

37. D

38. C

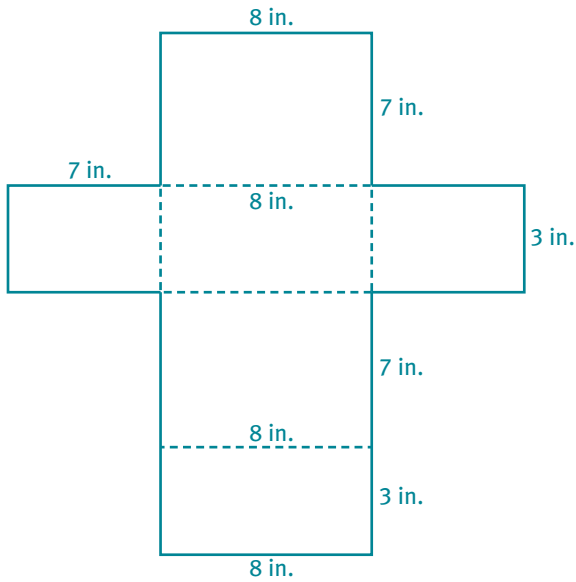
39. 11 inches;  $726 \div 6 = 121$ ;  $11 \times 11 = 121$

40. 1280 in.<sup>2</sup>; the area of each face is  $16 \times 16 = 256$ , and there are 5 faces.

## LESSON 25-2

41. B

42. a.



b.  $202 \text{ in.}^2$

43. C

44.  $366 \text{ in.}^2$

45. \$41.04;  $SA = 36 \times 18 \times 2 = 1296$ ,  $36 \times 7 \times 2 = 504$ ,  
 $18 \times 7 \times 2 = 252$ .  
Total surface area =  $2052 \text{ in.}^2 \times \$0.02 \text{ per in.}^2$   
= \$41.04

## LESSON 26-1

46.  $4096 \text{ mm}^3$

47. C

48. B

49.  $729 \text{ in.}^3$

50.  $343 \text{ in.}^3$  since each edge is 7 in.

## LESSON 26-2

51. a.  $28 \text{ in.}^2$

b.  $84 \text{ in.}^3$

52. C

53. a. 55.5 square inches

b. 804.75 cubic inches

54. B

55. 4.5 cubic feet