

ANSWERS FOR 6.1

For use with pages 273-275

6.1 Practice and Problem Solving

12. yes 14. yes
16. 6 18. 4
20. -1 22. -34
24. \$11
26. Money Babysitting
already saved + money per week
• Weeks + Grocery store
money per week
• Weeks = Price of
mountain bike ;
 $25 + 15w + 25w = 225$; 5 wk

28. 0 30. 7

32. -229 34. $36\frac{2}{3}$

36. $\frac{51(x-9)}{2} = 918$; 45 m

38. *Sample Answer:* The cost of 8 teacups and 8 saucers is $8(\$2) + 8(\$1) = \$24$, which is more than the \$20 she has to spend.

40. \$11.43

6.1 Mixed Review

42. $0.57 \times 10^4 < 5.7 \times 10^4$
44. 104, 103, 101 and 105, 12
46. 3 days = 4320 minutes

6.1 Test-Taking Practice

48. \$35, \$40. *Sample Answer:*
Hours Hourly charge
painting • for painting +
Hours Hourly charge
hanging • for hanging -
wallpaper wallpaper
Expenses = Profit;
 $12x + 15(x + 5) - 430 = 590$;
35

ANSWERS FOR 6.2

For use with pages 280-281

6.2 Practice and Problem Solving

8. 7 10. 27 12. -8
14. 9 16. 27 18. 36
20. $\frac{1}{2}$ 22. -7 24. 22
26. \$76 28. $1\frac{1}{5}$
30. -3 32. -16

34. Infinitely many. *Sample Answer:* When the left side of the equation is simplified, the expressions on both sides of the equation are exactly the same.

6.2 Mixed Review

36. 6 38. 70
40. 6.54 42. -11
44. -9 46. 8

6.2 Test-Taking Practice

48. B

ANSWERS FOR 6.3

For use with pages 284-285

6.3 Practice and Problem Solving

10. 3.4 12. 0.5
14. $-1\frac{1}{4}$ 16. 3
18. 4000 ft²; 1600 ft²
20. -1.258 22. $\frac{8}{57}$
24. \$1.87 26. 0.254

6.3 Mixed Review

28. $3\frac{1}{8}$ 30. $\frac{44}{117}$
32. 6 34. $72 + 9x$
36. $-2z$

6.3 Test-Taking Practice

38. H

ANSWERS FOR 6.6

For use with pages 303–305

6.6 Practice and Problem Solving

6. $x + 2 \leq 6$; $x \leq 4$
8. $x - 7 > 14$; $x > 21$
10. A 12. D
14. *Sample Answer:* You have at most \$31 to spend at a discount music store. You buy a cassette for \$5 and want to buy some \$8 CDs. What is the greatest number of CDs you can buy?
Solution: $x \leq 3.25$; you can buy at most 3 CDs.
16. $12c + 4 \leq 50$, $c \leq 3.83$; you can buy 3 CDs.
18. at least 7000 signatures
20. $6x + 30 + 24 \leq 108$, $x \leq 9$; no more than 9 boxes
22. distances greater than 2 mi;
 $m > 2$ mi

6.6 Mixed Review

24. 13.5 m 26. 20 ft
28. -3

6.6 Test-Taking Practice

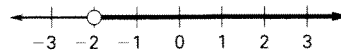
30. B

ANSWERS FOR 6.5

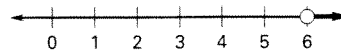
For use with pages 297–299

6.5 Practice and Problem Solving

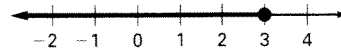
10. $b > -2$



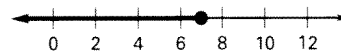
12. $y > 6$



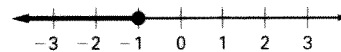
14. $s \leq 3$



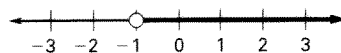
16. $x \leq 7$



18. $t \leq -1$



20. $d > -1$



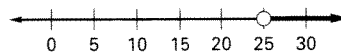
22. $16,000 + 150d \geq 18,550$;
 $d \geq 17$; you must catch at least 17 discs to have the high score.

24. *Sample Answer:* It is the same in that what you do to one side of the equation or inequality, you must do to the other side. It is different in that, with an inequality, if you multiply or divide each side by a negative number, you must reverse the direction of the inequality sign.

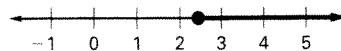
26. $m < 24$ 28. $h \geq 2.3$

30. $w > 17.9$ 32. $y < 5.1$

34. $x > 25$



36. $a \geq 2.454375$



38. You only have \$25 to spend, so it is impossible to buy up to 120 drinks.
40. The solution must be less than or equal to some number.

6.5 Mixed Review

42. 5.282; 6.13; no mode
44. 3 46. -3.8

6.5 Test-Taking Practice

48. G

ANSWERS FOR 6.4

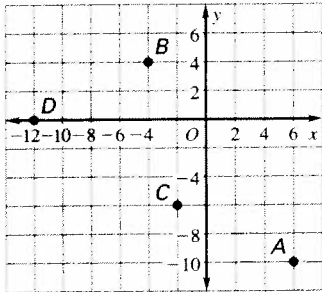
For use with pages 292-294

6.4 Practice and Problem Solving

10. $\frac{3}{4}$; 2.36 in.
 12. 7 m 14. 75 cm
 16. 132 ft 18. 47.1 mi
 20. 100 cm
 22. 2π , 4π , 8π , 16π , 32π ; the circumference doubles.
 24. *Sample Answer:* The word means to sail or fly around something, for example, an island; it involves going all the way around something.
 26. about 4110 mi
 28. 23.01 ft 30. 7 m
 32. 10 m

6.4 Mixed Review

34, 36.



38. $r > -5$ 40. $m < -21$
 42. 2

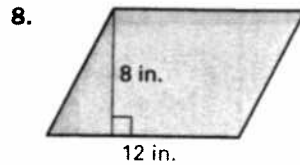
6.4 Test-Taking Practice

44. 9 in.

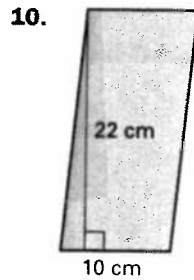
ANSWERS FOR 10.1

For use with pages 483-485

10.1 Practice and Problem Solving



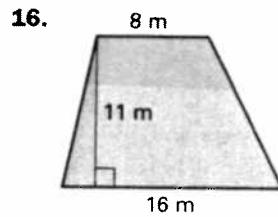
96 in.^2



220 cm^2

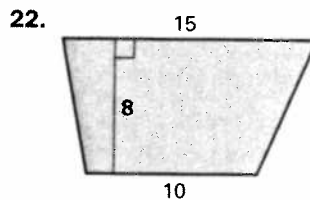
12. 130 cm^2

14. The height of the parallelogram is 5 inches, not 7 inches;
 $A = bh = 10 \cdot 5 = 50 \text{ in.}^2$.



132 m^2

18. 90 yd^2
 20. $b = 26 \text{ mm}$, $h = 13 \text{ mm}$,
 $A = 338 \text{ mm}^2$

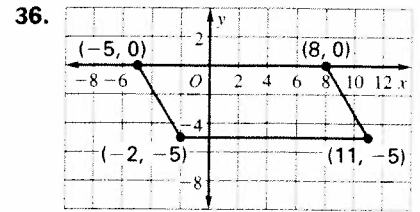


8 units

24. 40 cm^2 , 44 cm^2 ; the new areas are four times the original areas.
 26. $10k^2 \text{ cm}^2$, $11k^2 \text{ cm}^2$
 28. about 40,000 mi^2
 30. 162.38 ft^2
 32. 656 in.^2
 34. 8 cm^2

ANSWERS FOR 10.1 (CONT.)

For use with pages 483-485



65 units^2

38. 360 m^2

10.1 Mixed Review

40. $-1\frac{1}{6}$ 42. $-2\frac{1}{28}$

10.1 Test-Taking Practice

44. A

ANSWERS FOR 10.2

For use with pages 488–490

10.2 Practice and Problem Solving

6. 380 yd^2 8. 227 mm^2
 10. 254 cm^2 12. 2830 m^2
 14. 28.3 yd^2 16. 3 ft
 18. 8 yd 20. 2 mm
 22. about 452 ft^2
 24. 480 m^2
 26. 22.4 km^2 28. about 4530 m^2
 30. $81.64 = 2(3.14)r$; 13 m; 531 m^2
 32.

Radius r	Area of a circle with radius r	Area of a circle with radius $2r$
2 in.	$4\pi \text{ in.}^2$	$16\pi \text{ in.}^2$
3 in.	$9\pi \text{ in.}^2$	$36\pi \text{ in.}^2$
5 in.	$25\pi \text{ in.}^2$	$100\pi \text{ in.}^2$

Radius r	Area of a circle with radius $3r$	Area of a circle with radius $4r$
2 in.	$36\pi \text{ in.}^2$	$64\pi \text{ in.}^2$
3 in.	$81\pi \text{ in.}^2$	$144\pi \text{ in.}^2$
5 in.	$225\pi \text{ in.}^2$	$400\pi \text{ in.}^2$

The area is multiplied by the square of the number.

34. about 30 min

10.2 Mixed Review

36. 33 quarters. *Sample Answer:* I used Work Backward because I could find the number of quarters needed, 7, by dividing 100 by 15 and rounding up, then subtract 7 from 40, the original number of quarts in the roll.
 38. yes

10.2 Test-Taking Practice

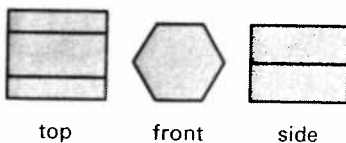
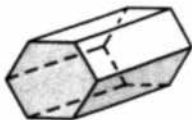
40. 285 ft^2 ; I found the area of the rectangle and half the area of the circle, then added to find the total area.

ANSWERS FOR 10.3

For use with pages 494–495

10.3 Practice and Problem Solving

8. rectangular prism; yes
 10.



10 faces,
 24 edges,
 16 vertices

12. *Sample Answer:* cylinders: cans, oatmeal boxes; cones: ice cream cones, funnels; square prisms: boxes, note cubes

14. C

16. A

ANSWERS FOR 10.3 (CONT.)

For use with pages 494–495

18. $E = F + V - 2$

Figure	Number of faces F	Number of vertices V
pentagonal pyramid	6	6
rectangular pyramid	5	5
triangular prism	5	6
rectangular prism	6	8
pentagonal prism	7	10

Figure	Number of edges E	$F + V$
pentagonal pyramid	10	12
rectangular pyramid	8	10
triangular prism	9	11
rectangular prism	12	14
pentagonal prism	15	17

20. hexagonal prism and hexagonal pyramid

- 22.



10.3 Mixed Review

24. 15 cm; 90 cm, 270 cm^2

10.3 Test-Taking Practice

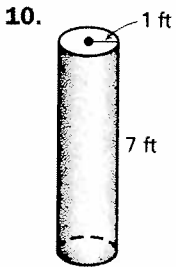
26. D

ANSWERS FOR 10.4

For use with pages 505-506

10.4 Practice and Problem Solving

6. 76 cm^2 8. 46.6 m^2

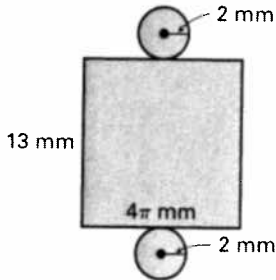


50.2 ft^2

12. 3185.6 mm^2

14. 434 m^2

16.



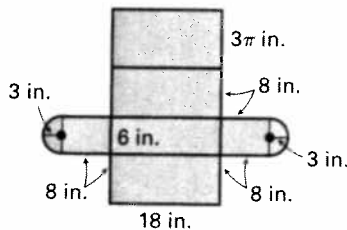
188.5 mm^2

18. rectangular prism

20. 571.8 in.^2

22. $56,957.1 \text{ ft}^2$

24. *Sample Answer:*



689.9 in.^2

ANSWERS FOR 10.4 (CONT.)

For use with pages 505-506

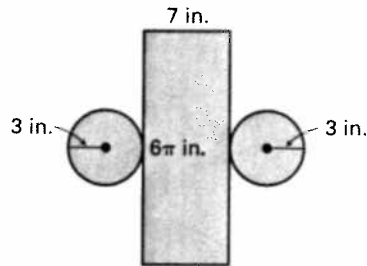
10.4 Mixed Review

26. yes 28. 0.9781

30. 0.9703 32. 176 ft^2

10.4 Test-Taking Practice

34.



cylinder; 188.5 in.^2

ANSWERS FOR 10.6

For use with pages 515-517

10.6 Practice and Problem Solving

6. 132 m^3 8. 13.68 cm^3

10. 552.9 ft^3 12. 20.4 m^3

14. 150.8 cm^3

16. 480 cm^3 18. 3240 in.^3

20. volume 22. surface area

24. larger: $10,400 \text{ mm}^3$,
pencil-top: 141.4 mm^3 ;
about 74 erasers

26. 409.5 ft^3

28. rectangular: 2560 ft^3 ,
cylindrical: 2714.3 ft^3 ;
cylindrical

30. Doubling the radius. *Sample Answer:* The radius is squared in the volume formula, but the height is not.

32. 337.5 ft^3

10.6 Mixed Review

34. 65

36. 114.6 mm^2

10.6 Test-Taking Practice

38. $104\pi \text{ cm}^2$, $144\pi \text{ cm}^3$;
 $936\pi \text{ cm}^2$, $3888\pi \text{ cm}^3$;
the surface area was multiplied
by 9 and the volume by 27.