

Lesson 1.1

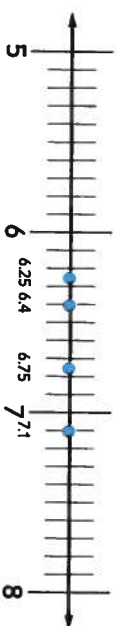
Workplace Skill, page 13  
\$27.50

Think about Math, page 14

1. C
2. A, B, and C

Core Skill, page 15  
 $4.8 < 5.25 < 5.375$

Core Practice, page 16



$6.25 < 6.4 < 6.75 < 7.1$

Think about Math, page 16

1. greater than 4.65
2. less than 4.65
3. greater than 4.65
4. less than 4.65

Think about Math, page 17

1. C
2. C

21<sup>st</sup> Century Skill, page 17

Pools A and D have acceptable pH levels.

Vocabulary Review, page 18

1. order
2. numerator
3. rational number
4. denominator
5. absolute value
6. integers

Skill Review, page 18–19

1. D
2.  $3.65 < 3\frac{11}{16} < 4.1$

3. Possible answer: Rational numbers can be written as the ratio of two integers (e.g.,  $\frac{7}{1}$  or 7) while irrational numbers (e.g.,  $\pi$ ) cannot be written as a ratio or fraction. The fraction  $\frac{22}{7}$  is only an approximation of  $\pi$ .

4. A
5. A
6. C

Skill Practice, page 19

1. D
2. C
3.  $\frac{9}{5} < \frac{5}{2}$

4. C and D

5. Possible answer: Absolute value is always positive or zero because it tells a number's distance from zero, so it cannot be a negative number.

6. B

Lesson 1.2

Think about Math, page 21

1. D
2. B

Core Skill, page 21

12 bracelets

Think about Math, page 23

1.  $(25 \times 4) \times 7 = 700$
2.  $9 \times 12 - 9 \times 3 = 108 - 27 = 81$
3.  $\left(\frac{1}{4} \times 5\right) \times 20 = \left(\frac{1}{4}\right) \times (5 \times 20) = \frac{1}{4} \times 100 = 25$

21<sup>st</sup> Century Skill, page 23

1. expression =  $365(875.22 - 750.79)$ , 45,416.95

Core Practice, page 24

Answer:  $(3 + 4)^2 - 5 \times 7 + 11$

Think about Math, page 25

1. 60
2. 44
3. undefined

Calculator Skill, page 25

Answers will vary: for example, taking square roots of negative numbers

Vocabulary Review, page 26

1. least common multiple
2. addend
3. greatest common factor
4. undefined
5. order of operations
6. factors

Skill Review, page 26

1. B
2. A
3. C
4.  $2 \times 3^2 \times 5$ , or  $2 \times 3 \times 3 \times 5$
5. 5 boxes
6. B

Skill Practice, page 27

1. 5 square inch grid squares
2. 5 and  $-5$
3. A
4. B

5. Distributive Property
6. April 22
7. C
8. Distributive Property; Distributive Property
9.  $2^3 \times 11$

Lesson 1.3

Think about Math, page 29

1. Expression:  $3.75 \times 15.5^2 + 50$   
Cost: \$951

Core Skill, page 29

$0.7 \times 12^3$

Core Practice, page 30

Sample answer: The exponent rule  $a^m \times a^n = a^{m+n}$  should hold true for all values of  $a$ ,  $m$ , and  $n$ . So  $1 = a^0 = a^{n-n} = a^n \times a^{-n}$  is true and so  $a^{-n} = \frac{1}{a^n}$ .

21<sup>st</sup> Century Skill, page 33

$1.75 \times 10^8$

Think about Math, page 33

1.  $1.118 \times 10^8$   
2.  $5.58 \times 10^7$   
3.  $-6.46 \times 10^{-2}$   
4.  $3.625 \times 10^3$

Vocabulary Review, page 34

1. b  
2. d  
3. e  
4. c  
5. f  
6. a

Skill Review, page 34-35

1. A

2. Power of a Quotient Property

3. D

4. \$2,519.42

5. A

6. A

Skill Practice, page 35

1. D

2.  $\frac{5^2 \times 2^6 \times 5^6}{10^6} = \frac{5^2 \times 2^6 \times 5^6}{(2 \times 5)^6}$

Power of a Product

$= \frac{5^2 \times 2^6 \times 5^6}{2^6 \times 5^6}$

$= \frac{5^2 \times 2^6 \times 5^6}{2^6 \times 5^6}$

$= \frac{5^{2+6}}{5^6} = \frac{5^8}{5^6}$

Product of Powers

$= 5^{8-6} = 5^2$

Quotient of Powers

$= 25$

3.  $3.42 \times 20^2 + 100$

4. B

5.  $(2.5 \times 10^5) \times (7.6 \times 10^{-4}) = (2.5 \times 7.6) \times (10^5 \times 10^{-4})$   
 $= 19 \times 10^{5+(-4)}$   
 $= 19 \times 10^1$   
 $= 190 = 1.9 \times 10^2$

6. C

Lesson 1.4

Core Skill, page 37

24 inches by 24 inches

Think about Math, page 39

B

Core Practice, page 40

17.3 miles

Think about Math, page 41

1. B

2. A

Vocabulary Review, page 42

1. index  
2. prime factorization  
3. rational exponent  
4. cube root  
5. irrational number  
6. square root

Skill Review, page 42-43

1. Division Property of Radicals

2. B

3. 13.82

4. 56.6 yd

5. B

6. D

Skill Practice, page 43

1. C

2.  $\frac{\sqrt{9} \times \sqrt[3]{9} \times \sqrt[3]{81}}{\sqrt{3} \times \sqrt{27}} = \frac{\sqrt{9} \times \sqrt[3]{9 \times 81}}{\sqrt{3 \times 27}}$

Mult. Prop. of Radicals

$= \frac{\sqrt{9} \times \sqrt[3]{729}}{\sqrt{81}}$

$= \frac{3 \times 9}{9}$

Evaluate the roots.

$= 3$

3. Multiplication Property of Radicals

4. D

5. 10 feet

6. A

Chapter Review

Review, page 44-45

1. D

2. A

3. D

4. B

5. D

6. D

7. D

8. A

9. C
10. A

11. B

12. undefined

13. Commutative

14. 10

15. square root

16. A

17. A

18. rational

19. \$648.44

20. 512

Lesson 2.1

Core Skill, page 49

the 50-lb bag

Think about Math, page 49

1. \$1.85

2. \$0.188 or 19 cents

3. \$0.04

Think about Math, page 50

1. B

2. C

Core Skill, page 50

\$159.50

21<sup>st</sup> Century Skill, page 51

960 Feet

Think about Math, page 51

1. 32 inches

2. 4

Vocabulary Review, page 52

1. ratio

2. similar

3. unit rate

4. proportion

5. equivalent

6. scale factor

Skill Review, page 52

1. B

2. C

3. 12 books

4. B

Skill Practice, page 53

1. A ratio is a comparison of two numbers. For example, 3 out of 4 people can be written as the ratio  $\frac{3}{4}$ . A proportion is a statement that two ratios are equivalent, such as  $\frac{3}{4} = \frac{9}{12}$ .

2. B

3. B

4. 10 feet

5. The unit rate for the 12-ounce box of cereal is \$0.24 per ounce. The unit rate for the 16-ounce box of cereal is \$0.22 per ounce, so the 16-ounce box is a better value because it has a lower unit rate.

6. C

7. B

8. 9 feet;  $\frac{1}{2}$

Lesson 2.2

Core Practice, page 56

about 85; possible benchmark: 48% is close to 50% or  $\frac{1}{2}$

Think about Math, page 56

- 1. 9
- 2. 630
- 3. 135
- 4. 225
- 5. 80
- 6. 675

Core Skill, page 57

The cost increased from April to August, so the percent change cannot be negative. The customer subtracted the amounts in the wrong order. The correct percent change is about 51%.

Think about Math, page 58

- 1. D
- 2. C

21<sup>st</sup> Century Skill, page 59

Jin

Think about Math, page 59

- 1. A
- 2. B

Vocabulary Review, page 60

- 1. percent
- 2. discount
- 3. principal
- 4. Simple interest
- 5. interest rate
- 6. benchmark

Skill Review, page 60-61

- 1. 0.34, 34%,  $\frac{34}{100}$ , or  $\frac{17}{50}$
- 2. B
- 3. C
- 4. about 8.3% increase
- 5. \$6.82; about 15%
- 6. 330 shoppers
- 7. 150 shoppers

Skill Practice, page 61

- 1. 20% increase; Explanations should include subtracting \$50 from \$60 and dividing the difference by \$50, and then changing the decimal to a percent.
- 2. No; Elena will pay \$415.80 interest on the 3-year loan and \$484 interest on the 4-year loan.
- 3. \$23
- 4. B
- 5. Yes; the cost of the monitor
- 6. C

Lesson 2.3

Core Skill, page 64

$4 \times 5 \times 4 = 80$

Think about Math, page 64

- 1. C
- 2. B

Core Practice, page 65

1,320

Think about Math, page 65

- 1. C
- 2. B

Think about Math, page 67

- 1. A
- 2. C

Vocabulary Review, page 68

- 1. factorial
- 2. experiment
- 3. outcome
- 4. combination
- 5. tree diagram
- 6. permutation

Skill Review, page 68-69

- 1. B
- 2. C
- 3. D
- 4. A
- 5. D
- 6. C

Skill Practice, page 69

- 1. 8 options
- 2. No; Possible answer: order does not matter, so you should find the Combination of outcomes. Andrew found the Permutation of outcomes. There are 220 different outcomes.
- 3. 24 combinations. Possible explanation: I used the Counting Principle and multiplied  $4 \times 3 \times 2$ .
- 4. Possible answers: 14!, 87,178,291,200
- 5. Possible explanation: When you think about the formula in the lesson  $P(n, k) / k!$ , replace the permutation with its formula and you end up with:  $(n!/(n - k)! ) \div k!$  which is the same as  $n!/(n - k)! \times 1/k!$ . This simplifies to the formula shown here.



Lesson 2.4

Core Skill, page 73

Answers: blue –  $\frac{2}{9}$ ; white –  $\frac{4}{9}$ ; gray –  $\frac{1}{3}$ ; not blue –  $\frac{7}{9}$ ; not white –  $\frac{5}{9}$ ; not gray –  $\frac{2}{3}$

Think about Math, page 73

- 1. 12
- 2. 30

Calculator Skill, page 74

- 1.  $\left(\frac{1}{2}\right)^{20} \approx 0.00000095$
- 2.  $(0.7)^7 \approx 8.2\%$

21<sup>st</sup> Century Skill, page 75  
0.87

Vocabulary Review, page 76

- 1. compound event
- 2. Probability
- 3. tree diagram
- 4. independent event
- 5. complement
- 6. dependent event

Skill Review, page 76-77

- 1.  $\frac{1}{2}$
- 2.  $\frac{1}{4}$
- 3.  $\frac{1}{6}$
- 4.  $\frac{1}{10}$
- 5. 5 times
- 6.  $\frac{3}{10}$
- 7. Drawings will vary. The probability is 10.7%.
- 8.  $\frac{2}{5}$

Skill Practice, page 77

- 1. Possible description: This is a dependent probability situation since she will not replace the shirt from the previous day back into her choices for the next day
- 2. Drawings will vary.
- 3. blue shirt
- 4. Drawings should include 12 sections, 4 sections red, 1 section blue, 3 sections green, 2 sections yellow, 2 sections purple.
- 5. Possible answer: For Monday through Thursday keep track of the colors of each car, find the probability that the next car parked is red. Then multiply that number by 25.

- 6. 2 people
- 7. A
- 8. B

Chapter Review

Review, page 78-79

- 1. D
- 2. B
- 3. certain
- 4. 16
- 5. C
- 6. proportional
- 7. C
- 8. B
- 9. C

- 10.  $8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$
- 11. A
- 12. 26%
- 13. B
- 14. 10
- 15. B
- 16. C
- 17. B
- 18. number cube twice
- 19. C
- 20. similar

Lesson 3.1

Workplace Skill, page 83

$0.10s + 250$

Think about Math, page 83

- 1.  $n - 5$
- 2.  $-7 + 2n$
- 3.  $10(2 + n)$

Core Skill, page 85

$21n + 8$

Think about Math, page 86

- 1. D
- 2. A

Core Skill, page 87

42

Calculator Skill, page 87

$-5.9445$

Think about Math, page 87

- 1. B, D
- 2. C

Vocabulary Review, page 88

- 1. coefficient
- 2. distribute
- 3. constant
- 4. evaluate
- 5. variable
- 6. algebraic expression

Skill Review, page 88

- 1.  $2n - 7$
- 2.  $-3n$
- 3.  $5n - 9$
- 4.  $3w$
- 5.  $-20p + 4$
- 6. 27
- 7. A, B
- 8. C

Skill Practice, page 89

- 1. Sample answer: Susan was correct. The expression is  $2n - (-5)$ . When the expression is evaluated at  $n = -5$ , the value of the expression is  $-5$ .

- 2.  $15p + 200$
- 3.  $-4x + 10$
- 4. \$18,000

- 5. Sample answer: The new gym is more expensive. After one year, the new gym membership cost is \$198 compared to the local gym membership cost of \$180.

- 6. A, B, D

Lesson 3.2

Core Skill, page 91

$n = 3$

$r = 2$

$q = 6$

$g = 3$

Think about Math, page 93

- 1.  $n - 10 = 62$ ;  $n = 72$
- 2.  $n + 20 = 30$ ;  $n = 10$
- 3.  $3n = 12$ ;  $n = 4$
- 4.  $-7 + n = 2$ ;  $n = 9$
- 5.  $\frac{n}{4} = -5$ ;  $n = -20$

Calculator Skill, page 94

No

Think about Math, page 95

- 1.  $x = -12$
- 2.  $r = -6$
- 3.  $y = 4$

Core Skill, page 95

$w = 5$

Vocabulary Review, page 96

- 1. expression
- 2. reciprocal
- 3. inverse operation
- 4. equation
- 5. variable
- 6. solution of an equation

Skill Review, page 96

- 1. expression; equation; expression; expression; equation; expression; equation; expression
- 2.  $2n - 4 = 7$
- 3.  $6n + 2 = 6$
- 4.  $x = 4$
- 5.  $x = -8$
- 6.  $x = 36$
- 7.  $x = 3$
- 8.  $y = 7x$ ; 56 minutes
- 9. possible equation  $y = 22x + 50$ ; 3 hours
- 10. B
- 11. A

Skill Practice, page 97

- 1. B
- 2. B
- 3.  $x = 4$
- 4. 6 months
- 5. \$25.50

- 6. In the last step, Jermaine multiplied the right side by 2 instead of dividing by 2. The correct solution is  $r = -\frac{3}{2}$ .

- 7. Greater than 100; to solve the equation, add  $c$  to both sides. Because  $c$  is a positive number,  $100 + c$  is greater than 100.

# Lesson 3.3

Core Skill, page 99



Think about Math, page 100

1.  $t < 75$

2. yes

Core Skill, page 101

$n < -\frac{1}{2}$ ,  $-10$  is a solution because  $-10$  is less than  $-\frac{1}{2}$

Calculator Skill, page 102

$$x \leq 1.65$$

21<sup>st</sup> Century Skill, page 103

20 months

Think about Math, page 103

1.  $b < -6.5$
2.  $q \geq -13.5$
3.  $q > -2$
4.  $x > -\frac{1}{3}$

Vocabulary Review, page 104

1. equation
2. inequality sign
3. Inverse operations
4. solution of an inequality
5. variable
6. inequality

Skill Review, page 104

1.  $n + 4 < 6$
2.  $3n \geq n + 1$
3.  $x > -6$



5.  $q > -3$



6. yes;  $x \leq 0$
7. yes;  $x \geq 9$
8. yes;  $x \geq -4$

Skill Practice, page 105

1.  $p \geq \$25.60$
2.  $n < -1$
3. no;  $x \geq 0.44$  (rounded)

4.  $400 - 25w \geq 175$ ,  $w \leq 9$ . Martin can spend \$25 for 9 or less weeks

5. Answer will vary. Sample answer: the person has \$2,000 in her savings account and is saving \$30 per month. She is saving to purchase a car that will cost at least \$9,000.

6. Michael incorrectly turned the symbol. Because the variable  $r$  did not have a negative coefficient, the symbol did not need to be reversed. Correct solution:  $r < -\frac{2}{3}$

7. Inequalities may vary. Sample answer:  $x < 0.3(150)$ ;  $x < 45$ ; A student can answer no more than 45 questions incorrectly to pass the state nursing exam this year.

8. a.  $<$ ;  $<$   
b.  $>$ ;  $>$

9.  $x > \frac{1}{3}$ ; The number line should have an open circle at  $\frac{1}{3}$  and an arrow pointing to the right from that circle to show that all values greater than  $\frac{1}{3}$  are solutions.

10. Inequalities may vary. Sample answer:  $44 - 6h \geq 20$ ;  $h \leq 4$ ; Emily can lower the temperature for no more than 4 hours.

11. Answers will vary. Sample answer: You must reverse the inequality symbol to make the solution inequality true.

12. Answers will vary. Sample answer: We do not know the value of the variable  $b$ —it could be positive or negative. As a result, the solution instead could be  $x > 5$ .

# Lesson 3.4

Core Skill, page 107

$$11h - 5w; \$435; \$430$$

21<sup>st</sup> Century Skill, page 108

$$308.75 = P(0.065)(5); P = \$950$$

Think about Math, page 109

1. C
2. A

Core Skill, page 110

$28,000 + c \leq 80,000$ ;  $c \leq 52,000$ ; allowable cargo weights are less than or equal to 52,000 pounds.

Think about Math, page 111

1. C
2. B

Vocabulary Review, page 112

1. inverse operations
2. algebraic expression
3. equation
4. inequality

Skill Review, page 112-113

1. a.  $10b + 5$ ; b.  $\$85$ ; c. 3

2. C

3. 11 weeks

4.  $h \geq 3$

5.  $s \leq 2,000$

6.  $h > 16$

7. 5 years

Skill Practice, page 113

1. A

2. A

3.  $700 - 3m \geq 100$ ; no more than \$200 per month

4. B

5. In the simple interest formula, Cal substituted 11,200 for the interest. However, the amount of interest is  $11,200 - 10,000 = 1,200$ . The correct interest rate is 4%.

6.  $x + (x + 8) = 52$ ; 22 inches



Chapter Review

Review, page 114-115

- 1. Possible answer: 8 less than 5 times a number
- 2. D
- 3. D
- 4.  $n > 8$
- 5. 194
- 6. D
- 7. B
- 8. A
- 9. Possible Answer: 85 divided by a number is equal to 17

- 10. D
- 11.  $0.2x + 3 = 15$
- 12. B
- 13. B
- 14. C
- 15. A
- 16.  $10x \geq 70$

Lesson 4.1

Core Practice, page 119

$-5m^3 - 5m^2 + 16m + 5$

Think about Math, page 119

- 1. B
- 2. D

Core Skill, page 120

18 feet

21<sup>st</sup> Century Skill, page 121

$-0.0002x^2 + 1.5x - 175$

Vocabulary Review, page 122

- 1. b
- 2. d
- 3. e
- 4. c
- 5. a

Skill Review, page 122-123

- 1. D
- 2. Sample answer: For polynomials written in standard form, the exponents are in order from greatest to least, left to right. Since the degree of a polynomial is the greatest exponent in the polynomial, the exponent of the first term of a polynomial written in standard form is the degree of the polynomial. For example, for the polynomial  $2x^5 + 3x^4 - 7x$  written in standard form, the degree, 5, is the exponent of the first term
- 3. False; the product of two monomials is a monomial. Examples:  $2(x^7) = 2x^7$ ;  $3x^2(x) = 3x^3$ ;  $2x^2(3x^3) = 6x^5$
- 4. A
- 5. B

Skill Practice, page 123

- 1. D
- 2. C
- 3. Yes; Sample explanation: If the terms with an exponent of 4 in both polynomials have the same coefficient, the terms with an exponent of 3 in both polynomials have the same coefficient, and the terms with an exponent of 2 in both polynomials do not have the same coefficient, then the difference of the two polynomials will have degree 2. For example,  $5x^4 + 2x^3 - 3x^2 + x$  and  $5x^4 + 2x^3 + 6x^2 - 4$  are two polynomials of degree 4, and their difference,  $3x^2 + x - 4$  has degree 2.
- 4. 2
- 5. C
- 6. C
- 7. Sometimes; if the monomials are not like terms, the sum will be a binomial:  $(2x^3) + (x^2) = 2x^3 + x^2$ , if the monomials are like terms, the sum is a monomial:  $(2x^3) + (4x^3) = 6x^3$
- 8. A



# Lesson 4.2

Think about Math, page 126

1.  $2x^3(7 + 2x^6)$
2.  $x^2y(2x^5 - 3y^2)$
3.  $2x^2y^3(2x + x^2y^2 - 3y)$

Core Practice, page 126

$(x + 4)(x - 3)$

Core Practice, page 127

$4x^2 + 12x - 40$

Vocabulary Review, page 128

1. c
2. a
3. f
4. e
5. b
6. d

Skill Review, page 128

1. B
2. A
3.  $3x^2 - 8x + 4 = 3x^2 - 6x - 2x + 4$   
 $= (3x^2 - 6x) + (-2x + 4)$   
 $= 3x(x - 2) - 2(x - 2)$   
 $= (3x - 2)(x - 2)$

4. D
5. C

Skill Practice, page 129

1. B
2. Disagree; Possible explanation: A linear factor has general form  $ax + b$ . Multiplying four such linear factors would give a term that includes  $x^3$  and therefore be a degree 3 polynomial; but the degree of the polynomial shown is 2.
3. C
4.  $4x^3 + 2x^2y - 2xy^2 = 2x(2x^2 + xy - y^2)$   
 $= 2x[(2x^2 + 2xy - xy + (-y^2))]$   
 $= 2x[(2x^2 + 2xy) - (xy + y^2)]$   
 $= 2x[2x(x + y) - y(x + y)]$   
 $= 2x(2x - y)(x + y)$
5. A
6. B
7. False; factoring a quadratic expression could result in the product of a linear monomial and a linear binomial. Example:  $x^2 + x = x(x + 1)$
8. D

# Lesson 4.3

Think about Math, page 131

1.  $[-2, 2]$
2.  $[-7, 3]$

Test-Taking Skill, page 132

5 feet; 3 feet

Think about Math, page 133

1.  $[-12, 2]$
2.  $[-6, 0]$
3.  $[-6, 2]$

Core Skill, page 134

Equations 1 & 2

Core Skill, page 135

6 seconds

Think about Math, page 135

1.  $a = 1, b = 2, c = -8$
2. 36
3. 2
4. 2, -4

Vocabulary Review, page 136

1. Completing the square; perfect-square trinomial
2. solving by inspection
3. quadratic formula; discriminant

Skill Review, page 136

1.  $[-7, 3]$
2.  $[3, 12]$
3.  $[-9, 8]$
4.  $[-14, 6]$
5. B
6. C
7. C
8. 2
9.  $[-\frac{2}{3}, -1]$

Skill Practice, page 137

1.  $[2, 3]$
2.  $[-4, 1]$
3.  $[-4]$
4. C
5. a.  $r = \sqrt{\frac{A}{\pi}}$   
b. No; the negative square root does not make sense because a radius cannot be negative.  
c. about 2 feet
6. A
7. The length and width of the rectangle; 35 feet and 15 feet
8. 35 sandwiches
9. 9; Possible explanation: For the equation to have one real solution,  $b^2 - 4ac = 0$ . Substitute  $b = 6$  and  $a = 1$  into this equation and solve for  $c$ .
10. Zach did not write the equation in the form  $ax^2 + bx + c = 0$  before identifying  $a, b$ , and  $c$ . To find the correct values, subtract  $4x$  from both sides and add 3 to both sides. This gives the equivalent equation  $3x^2 - 6x + 4 = 0$ ;  $a = 3$ ,  $b = -6$ , and  $c = 4$ . For this equation,  $b^2 - 4ac = -12$ , so there are no real solutions.

Lesson 4.4

Core Skill, page 139

-2

Think about Math, page 139

- 1.  $\frac{x^2}{x+5}; x \neq 3, x \neq -5$
- 2.  $\frac{x}{x+2}; x \neq -2$
- 3.  $\frac{x-6}{x-4}; x \neq -3, x \neq 4$

Core Skill, page 140

$\frac{22}{27} \times \frac{63}{66} = \frac{2 \times 11}{3 \times 3 \times 3} \times \frac{3 \times 3 \times 7}{2 \times 3 \times 11} = \frac{7}{9}$

Think about Math, page 141

- 1.  $\frac{3}{x^2-2x-24}$
- 2.  $\frac{x^2-4x}{12}$

Workplace Skill, page 142

$\frac{2x+5}{x^2+5x}$

Vocabulary Review, page 144

- 1. polynomial
- 2. reciprocals
- 3. rational expression
- 4. LCD
- 5. Restricted values
- 6. prime number

Skill Review, page 144-145

- 1.  $\frac{r+1}{r-4}, \frac{4}{3x}, \frac{n^2-81}{n-1}$
- 2. a.  $x \neq 1$   
b.  $x \neq 0$   
c.  $x \neq -3, x \neq 4$
- 3. D
- 4.  $\frac{2x+2}{5x}$
- 5.  $\frac{7r+7}{8r+1}$
- 6.  $\frac{4n-4}{n-3}$
- 7. C

Skill Practice, page 145

- 1. B
- 2. The student made an error combining like terms in Step 3. The correct answer is  $\frac{8x+14}{x^2+2x}$ .
- 3. Possible answer:  $\frac{2x-2}{x+4} + \frac{-x+1}{x+4}$
- 4.  $x+2$
- 5.  $\frac{a+b}{2}$
- 6. a.  $m+3$   
b.  $\frac{1}{m+3}$   
c.  $\frac{2m+3}{m^2+3m}$   
d.  $\frac{1}{2}$ ; 2 hours

Chapter Review

Review, page 146-147

- 1.  $2x^3+6x^2+5x+15$
- 2. Zero Product Principle
- 3. C
- 4. C
- 5. B
- 6. -8 and 2
- 7.  $4x^2y$
- 8. D
- 9. D
- 10. B
- 11.  $\frac{x-3}{x}$
- 12. C
- 13. C
- 14. leading coefficient
- 15. A
- 16.  $\frac{x^2+9x-18}{(x+3)(x-3)}$
- 17. C

Lesson 5.1

Core Practice, page 151

Quadrant II: negative  $x$ -coordinates, positive  $y$ -coordinates; Quadrant III: all negative coordinates; Quadrant IV: positive  $x$ -coordinates, negative  $y$ -coordinates

Think about Math, page 152

- 1. A, C
- 2. B, C

21<sup>st</sup> Century Skill, page 154

Person B

Think about Math, page 154

Line B, Line A, Line C

Core Skill, page 155

3 miles

Vocabulary Review, page 156

- 1. unit rate
- 2. coordinate plane
- 3. quadrant
- 4. proportional relationship
- 5. slope
- 6. ordered pair

Skill Review, page 156-157

- 1. Quadrant I: (11, 2); Quadrant II: (-1, 8), (-10, 12); Quadrant III: (-20, -1); Quadrant IV: (1, -15), (7, -18)]
- 2. Sample answer: The solutions of the equation are ordered pairs that represent points on the line. Every solution is represented by a point on the line, and all points on the line represent solutions. For example, the point (2, 1) lies on the graph shown; this means that (2, 1) is a solution of the line's equation.

- 3. C
- 4. A
- 5. \$10.50

Skill Practice, page 157

- 1. Answers will vary. Possible response: (-2, -4);  $x$  and  $y$  coordinates must both be negative
- 2. A, C, D
- 3. Answer: Lincoln divided the run by the rise, instead of the rise by the run; 2
- 4. Point graphed and labeled at (1, 2)
- 5. Answer: Store A. Possible response: You can use the graph to determine that 1 pound of apples costs \$1.50. The table shows that 1 pound of apples at Store B costs \$1.70. Because 1 pound of apples costs less at Store A, 5 pounds of apples will cost less at Store A.

Lesson 5.2

Core Skill, page 159

$y = 2x + 10$

Think about Math, page 160

- 1.  $y - 2 = -3x + 3$
- 2.  $A = 3, B = 1, C = 5$
- 3.  $y = -3x + 5$

Core Practice, page 161

$y = -\frac{5}{2}x + 110; 60$

Think about Math, page 162

- 1. 20
- 2.  $y = -3x + 7$

Workplace Skill, page 163

The slope for Factory 1 is steeper than the slope for Factory 2. Factory 1 will produce the most items in an 8-hour workday because it has a steeper slope.

Think about Math, page 163

(-2, 2), (-4, 1), and (4, 5) are on the line.

Vocabulary Review, page 164

- 1.  $y$ -intercept
- 2. point-slope form
- 3. slope
- 4. standard form of a linear equation
- 5. coefficient
- 6. slope-intercept form

Skill Review, page 164-165

- 1. D
- 2. A
- 3. D
- 4.  $y = 2x + 2$
- 5.  $y - 3 = -\frac{4}{3}x - \frac{16}{3}$
- 6. Possible points: (0.5, 10), (1, 15), (1.5, 20), (2, 25)

Skill Practice, page 165

- 1. The equation is  $y = 2x + 8$ . For selling 20 T-shirts, she earns \$48 in commission.
- 2. The slope is  $\frac{4}{5}$ . The equation of the line in slope-intercept form is  $y = \frac{4}{5}x$ .
- 3. The equation of the line is  $y = 10x + 10$ . The cost to rent a boat for 8 hours is \$90.

4. B



Lesson 5.3

Core Skill, page 167

$x = -6$

Think about Math, page 167

- 1. 1
- 2. -3
- 3. -7

graph a line through points (1, 1) and (2, -3)

Calculator Skill, page 167

The answer is -17 using both methods; however, when stored as a variable I don't have to enter parentheses around the negative number.

Core Skill, page 168

Equations will vary.

Test-Taking Skill, page 169

No, the slope of the equation is negative, so it should be sloping the other direction. The y-intercept in the equation is 1, but the y-intercept of the line on the graph is 0.

Think about Math, page 169

- 1. D
- 2. \$4.50

Vocabulary Review, page 170

- 1. slope
- 2. y-intercept
- 3. x-value
- 4. ordered pair
- 5. slope-intercept form
- 6. y-value

Skill Review, page 170-171

- 1. -2, 1, 4
- 2. B
- 3. a. graph a line through points (0, 20) and (1, 80)  
b. A

- 4.  $x = -4$
- 5. 4

Skill Practice, page 171

- 1. a. cats cost \$68 for a week, dogs cost \$96 for a week  
b. A
- 2. a. Graph a line through points (1, 120) and (2, 240).  
b. 25 minutes
- 3. a. Graph a line through points (0, -2) and (1, -5)  
b. 9 units

Lesson 5.4

Core Skill, page 173

$x + y = 200$  and  $10x + 15y = 2,600$

Think about Math, page 174

D

Workplace Skill, page 175

- 1. Company A charges \$60 and Company B charges \$55.

Think about Math, page 175

- 1. 75 boxes

Core Skill, page 177

elimination, graphing, substitution

Think about Math, page 177

- 1. 100 square and 50 rectangular blocks

Vocabulary Review, page 178

- 1. independent system
- 2. substitution method
- 3. dependent system
- 4. system of linear equations
- 5. inconsistent system
- 6. elimination method

Skill Review, page 178-179

- 1. independent
- 2. A, C
- 3. a.  $x + y = 5$  and  $x - y = 1$   
b.  $x = 3, y = 2$

- 4. A
- 5. B

- 6. a. 50 prints  
b. Photographer B

Skill Practice, page 179

- 1. C
- 2. 5 classes
- 3. a. Set a line going through points (1, 29) and (2, 32), and another line going through points (1, 27) and (2, 32)  
b. \$32
- 4. a. B  
b. Plan B



Chapter Review

Review, page 180-181

- 1. B
- 2. D
- 3. Answers will vary. Possible answer: (3, 9)
- 4. (0, 2)
- 5. C
- 6. A
- 7. C
- 8.  $y = 5x + 3$
- 9.  $-2.25$  and  $2.25$ , or  $-\sqrt{5}$ ,  $\sqrt{5}$

- 10.  $x > 0$
- 11. relative maximum
- 12. A
- 13. A
- 14. D
- 15. B
- 16. Answers will vary. Possible answer:  $y = 5x + 2$

Lesson 6.1

Core Practice, page 185

Top graph: no; bottom graph: yes

Think about Math, page 186

- 1. No; there are many vertical lines that will intersect the graph in more than one place.
- 2. Yes; each domain value has exactly one range value.

21<sup>st</sup> Century Skill, page 187  
\$288.00

Think about Math, page 187

- 1. 18, -3, -24
- 2. 10, 2,  $\frac{5}{2}$

Core Skill, page 188

256; 240; 192; 112; 0; the height of the object after 0, 1, 2, 3, and 4 seconds

Think about Math, page 189

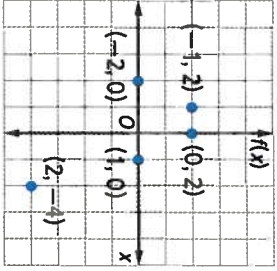
4; 2; 2; 4; 6

Vocabulary Review, page 190

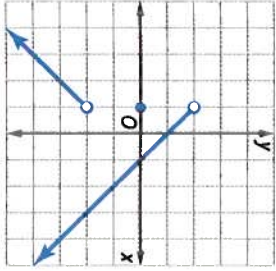
- 1. range
- 2. function
- 3. quadratic function
- 4. domain
- 5. linear function
- 6. one-to-one function

Skill Review, page 190-191

- 1. A, B, and D represent functions; A and D are one-to-one.
- 2. D
- 3. a. \$6.50  
b. \$26; \$32.50; \$39; \$45.50
- 4. A
- 5. 0; 2; 2; 0; -4



6.



Skill Practice, page 191

- 1. Table C is not a function because the domain value -1 is paired with two different range elements.
- 2. Possible answer: If there is a vertical line that intersects the graph at more than two points, then these points have the same  $x$ -coordinate but different  $y$ -coordinates. This means that a value from the domain has more than one range value, so the graph cannot represent a function. If there is no such vertical line, then the graph does represent a function.

- 3. B
- 4. a.  $f(x) = 8x$   
b. 16 miles  
c. Yes; each input (length of time) will result in a different output (distance).  
d. 7.5 minutes, or 7 minutes and 30 seconds  
e. Linear; it is in the form  $f(x) = mx + b$  with  $m = 8$  and  $b = 0$ .
- 5. 0; The ball's height after 5 seconds is 0, so the ball reached the ground after 5 seconds.
- 6. The relationship is not a function because the domain value  $x = 0$  has two range values, 1 and -1; possible answer: either change  $x \geq 0$  to  $x > 0$  or change  $x \leq 0$  to  $x < 0$  (or both).

Lesson 6.2

Think about Math, page 193

- 1. -3
- 2. 1

Test-Taking Skill, page 193

Yes; the first and third consecutive differences

Core Practice, page 197

No; Mario subtracted the values of  $f(x)$  in the wrong order in some cases.

Vocabulary Review, page 198

- 1. linear function
- 2. common differences
- 3. quadratic function
- 4. coordinate
- 5. consecutive difference

Skill Review, page 198

- 1. B
- 2. B
- 3. Answers will vary; check students' work.

Skill Practice, page 199

- 1. Heidi; the  $x$ -values in Neal's table do not change by 1.
- 2.  $f(x) = x^4$  has common fourth consecutive differences; check students' tables.
- 3. Answers will vary; check students' work.
- 4. Answers will vary; check students' work.
- 5. Answers will vary; check students' work.

Lesson 6.3

Core Practice, page 201

A quadratic graph will have one  $y$ -intercept and may have no, one, or two  $x$ -intercepts.

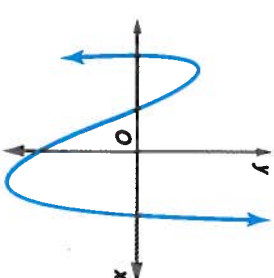
Core Skill, page 204

Possible answer: The  $x$ -intercept is 3 and the  $y$ -intercept is 6.

Calculator Skill, page 205

1.5,  $-\frac{1}{3}$

Think about Math, page 205

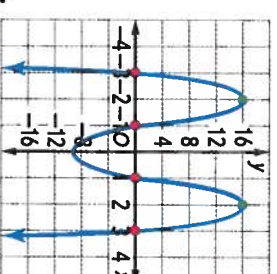


Vocabulary Review, page 206

- 1.  $y$ -intercept
- 2. relative maximum/minimum
- 3.  $x$ -intercept
- 4. line symmetry
- 5. End behavior
- 6. rotational symmetry

Skill Review, page 206-207

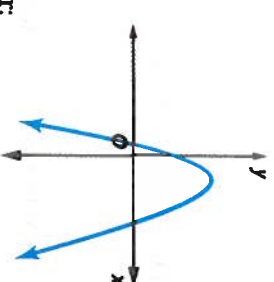
- 1. A; Possible explanation: Substitute 0 for  $x$  to find that the  $y$ -intercept is 3. Similarly, substitute 0 for  $y$  to find that the  $x$ -intercept is 3. Choose the graph with these intercepts.



- 2.
- 3. C

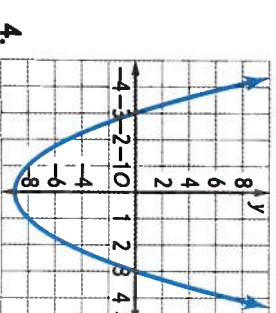
Skill Practice, page 207

- 1.  $x$ -intercepts: -1, 1, 3  
 $y$ -intercept: 3  
positive:  $-1 < x < 1$  and  $x > 3$   
negative:  $x < -1$  and  $1 < x < 3$   
increasing:  $x < 0$  and  $x > 2$   
relative maximum: 3; relative minimum: -3



- 2. a. Possible answer:  
b. Not possible; because of the shape of a quadratic graph, it must have either a relative maximum or a relative minimum.]  
c. Not possible; all quadratic graphs are symmetrical about a vertical line.

- 3. Answers will vary. Check students' work.



- 4. Possible description: Use the function rule to find that the  $y$ -intercept is -9 and the  $x$ -intercepts are -3 and 3. Plot the points (0, -9), (-3, 0), and (0, 3). Because the graph is quadratic, it is symmetrical about a vertical line; this line must be the  $y$ -axis because of the location of the  $x$ -intercepts.
- 5. Yes; if a line has both an  $x$ -intercept and a  $y$ -intercept, those intercepts correspond to two points, and two points determine a unique line. If a line has only one intercept, then the line is vertical or horizontal through the point that corresponds to the intercept.

Lesson 6.4

Core Skill, page 210

\$600

In one week or 7 days, Dean earns  $7(\$75) = \$525$ .

No; Dean spends \$75 more per week than he earns.

Think about Math, page 210

B, A and C

21<sup>st</sup> Century Skill, page 212

at least about 24 minutes or 0.4 hour; at least about 14 minutes or 0.23 hour

Core Practice, page 213

Factor the function to see whether it had 1 and 5 as its  $x$ -intercepts.

Vocabulary Review, page 214

- 1. slope;  $y$ -intercepts
- 2. quadratic function
- 3. proportional relationship, slope

Skill Review, page 214

- 1. Jonas is correct that the table does not tell when Rocket A reached the ground. However, the table does show that Rocket A was still in the air after 2.5 seconds, and the graph shows that Rocket B was in the air for less than 2 seconds. Therefore, Rocket B reached the ground first.

2. A

3. C

- 4. Boris earns \$8 more per day.

Skill Practice, page 215

1. B, D

- 2. Function B, Function A, Function C

- 3. Chicago; \$4.00

- 4. Dallas; \$1.80

5. B

Chapter Review

Review, page 216–217

1. A

- 2. quadratic

3. D

- 4. Possible answer: kicking a ball in the air

- 5. domain

- 6.  $-4$  and  $5$

- 7.  $-2 < x < 3$

- 8. relative maximum

- 9. Ellen

10. B

11. C

12. D

13. B



Lesson 7.1

Core Skill, page 221

84 m<sup>2</sup>, round 11.2 to 11 and round 7.5 to 8.  
11 × 8 = 88, so 84 m<sup>2</sup> is a reasonable answer.

Think about Math, page 221

- 1. A
- 2. D

Test-Taking Skill, page 223

84 cm<sup>2</sup>

Think about Math, page 224

- 1. A

Core Skill, page 225

60 cm<sup>2</sup>

Think about Math, page 225

- 1. A
- 2. B

Vocabulary Review, page 226

- 1. trapezoid
- 2. area
- 3. polygon
- 4. parallelogram
- 5. perimeter
- 6. hypotenuse

Skill Review, page 226–227

- 1. B
- 2. C

3. The perimeter of a polygon is the distance around the outside of a polygon. It is measured in linear units. The area of a polygon is the number of square units inside the polygon. For example, the perimeter of a rectangle with length 8 cm and width 3 cm is 22 cm, while its area is 24 cm<sup>2</sup>.

- 4. B
- 5. 10 pendants
- 6. Keisha; Howie found the area by multiplying  $2 \times 1\frac{1}{4}$  instead of  $2 \times \frac{3}{4}$ .

Skill Practice, page 227

- 1. C
- 2. D

3. 432 tiles

4. Possible answer: The area of one sheet of vinyl is  $6 \times 4 = 24$  square feet, so two sheets of vinyl are needed. Cut one sheet of vinyl in half along the diagonal, creating two right triangles. Attach the triangles to the second sheet of vinyl, one on each side, to form a parallelogram whose area is the same as two rectangles, or 48 ft<sup>2</sup>.

5. Possible answer: The two trapezoids together form a parallelogram with height  $h$  and base  $b_1 + b_2$ . The area of this parallelogram is  $h(b_1 + b_2)$ . Therefore the area of the trapezoid is  $\frac{1}{2}$  this amount, or  $\frac{1}{2}h(b_1 + b_2)$ .

Lesson 7.2

Core Practice, page 229

$C = \pi d$ , because you are given the diameter, substitute the diameter (250 ft) for  $d$  in this formula. about 785 ft

Think about Math, page 229

- 1. B

Calculator Skill, page 230

324

Core Skill, page 230

You must first find the radius by dividing the diameter by 2. The radius is 8 in. Substitute this value into the area formula and simplify. The area is  $64\pi$  in<sup>2</sup>, or about 200.96 in<sup>2</sup>.

Think about Math, page 230

- 1. C
- 2. 254 m<sup>2</sup>

Workplace Skill, page 231

Use the formula for circumference,  $C = \pi d$ . Substitute 47 for  $C$  and solve for  $d$  by dividing 47 by 3.14. The diameter is about 15 feet.

Think about Math, page 231

- 1. B
- 2. 80 feet

Vocabulary Review, page 232

- 1. radius
- 2. area
- 3. circle
- 4. Pi ( $\pi$ )
- 5. circumference
- 6. diameter

Skill Review, page 232–233

- 1. C
- 2. A

3. Sample answer: Divide the area by  $\pi$ , take the square root to find the radius, and then multiply by  $2\pi$ .

- 4. C
- 5. A
- 6. C

Skill Practice, page 233

- 1. B
- 2. C
- 3. B

4. Sample answer: First, substitute the given area into the formula  $A = \pi r^2$  and solve for  $r$ . Then, because diameter is twice the radius, multiply  $r$  by 2.

5. Circumference:  $4\pi$ ,  $8\pi$ ,  $16\pi$ ,  $32\pi$ ,

Area:  $4\pi$ ,  $16\pi$ ,  $64\pi$ ,  $256\pi$

When the radius is doubled, the circumference is doubled. When the radius is doubled, the area is multiplied by 4.

6. Medium; the radius of her pie pan is a little less than 4 inches, so the diameter is a little less than 8 inches.



Lesson 7.3

Core Skill, page 236

189 ft<sup>3</sup>

21<sup>st</sup> Century Skill, page 237

about 954 ft<sup>3</sup>

Think about Math, page 237

1. 1364 cm<sup>2</sup>

Core Skill, page 238

Area of square: 36 cm<sup>2</sup>, area of each triangle:

27 cm<sup>2</sup>, surface area: 144 cm<sup>2</sup>

Vocabulary Review, page 240

- 1. Volume
- 2. prism
- 3. surface area
- 4. cylinder
- 5. sphere
- 6. pyramid

Skill Review, page 240

- 1. C
- 2. B
- 3. D
- 4. B
- 5. B
- 6. A

Skill Practice, page 241

- 1. C
- 2. 45,000 in.<sup>3</sup>
- 3. A
- 4. B
- 5. A
- 6. B
- 7. Carmen has assumed that the container is a cylinder.
- 8. Yes, the formula for surface area of a cylinder is  $SA = 2\pi r^2 + 2\pi rh$ . You can use the Distributive Property to rewrite the right side as  $2\pi r(r + h)$ , which is equivalent to Wallace's method.

Lesson 7.4

Core Skill, page 243

The floor is composed of a rectangle and a semicircle. Using the formulas for the areas of a rectangle and a semicircle, the area of the composite shape is 79.3 ft<sup>2</sup>

Think about Math, page 243

- 1. about 3,142 yd
- 2. 182 ft<sup>2</sup>

21<sup>st</sup> Century Skill, page 244

23,038 ft<sup>3</sup>

Calculator Skill, page 245

2,744

Think about Math, page 245

- 1. B
- 2. D

Core Practice, page 247

The formula for surface area of a cylinder,  $2\pi rh$ , 3,079 ft<sup>2</sup>

Think about Math, page 247

1. C

Vocabulary Review, page 248

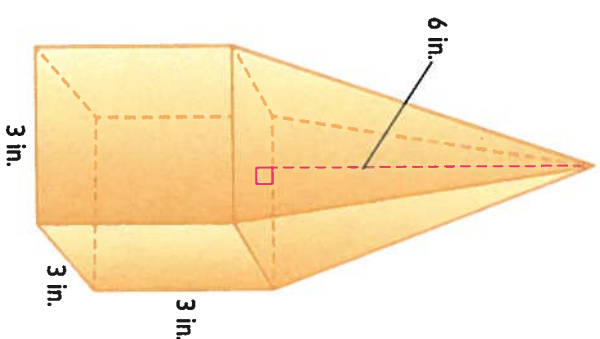
- 1. 2-dimensional
- 2. hemisphere
- 3. composite figure
- 4. composite solid
- 5. 3-dimensional

Skill Review, page 248

- 1. C
- 2. B
- 3. 357 cm<sup>2</sup>
- 4. Volume = 9,048 cm<sup>3</sup>, surface area = 2,261 cm<sup>2</sup>

Skill Practice, page 249

- 1. 130 feet
- 2. 10 feet
- 3. D
- 4. Scott used the slant height in the formula instead of the height.
- 5. B
- 6. Answers will vary. Possible answer:



Chapter Review

Review, page 250–251

- 1. B
- 2. 24 centimeters
- 3. 28.26 centimeters
- 4. C
- 5. B
- 6. B
- 7. 6 cm
- 8. C
- 9. 168 ft<sup>2</sup>

- 10. A
- 11. B
- 12. B
- 13. B

Lesson 8.1

Core Skill, page 256

\$2.74

Think about Math, page 256

- 1. C
- 2. B
- 3. A
- 4. D

Workplace Skill, page 257

16 dozen roses each day

Think about Math, page 258

- 1. B
- 2. D

Workplace Skill, page 259

\$5.40 per shirt

Think about Math, page 259

- 1. B
- 2. C

Vocabulary Review, page 260

- 1. mode
- 2. median
- 3. range
- 4. mean; average OR average; mean
- 5. weighted average

Skill Review, page 260

- 1. 8.75 in.
- 2. Possible answer: average the two items closest to the center, in this case the 4th and 5th

- 3. C
- 4. 17.6
- 5. D
- 6. C

Skill Practice, page 261

- 1. 1
- 2. A, B, C
- 3. 48 48 54 70
- 4. B
- 5. 550
- 6. D
- 7. C
- 8. A
- 9. 9,700
- 10. 10.5

Lesson 8.2

Core Skill, page 263

Downtown: July, August, September, and December;  
Suburban: December

Core Skill, page 264

3 times more and the graphic makes it appear  
like 9 times more

Think about Math, page 265

1. B

Test-Taking Skill, page 266  
about 90

Workplace Skill, page 266

Sample answer: Eliminate orange. It's the least  
popular color. Eliminating maroon as well might  
lose more than 20% of customers, so orange is the  
only color to eliminate.

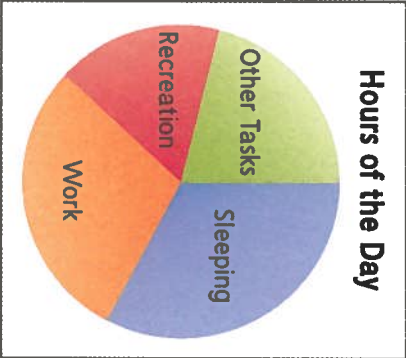
Calculator Skill, page 267

possible answers: brown: 80; blond: 60; black: 30;  
red: 10; other: 20

Think about Math, page 267

1. B

2.



Vocabulary Review, page 268

- 1. circle graph
- 2. legend
- 3. bar graph

Skill Review, page 268-269

1. B

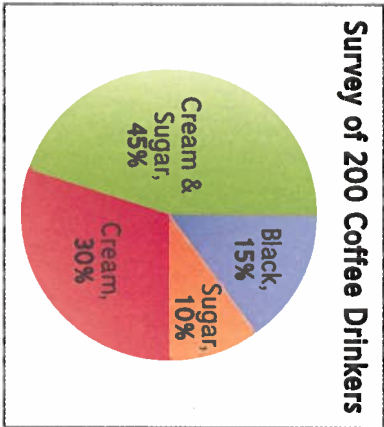
2. A

3. C

4. 30

5. 80

6.



Skill Practice, page 269

1. Possible answer: 0 to 40, with ticks every 5 units  
and number labels every 10 units. This is enough  
to show all the data and see the lengths of the  
bars reasonably well without having so many  
labels it is difficult to read.

2. Gomez is so far ahead of the others that their  
bars will be virtually invisible next to his.

3. 18%

4. C

5. halfway between 4 o'clock and 5 o'clock

6. a. Circle graph

b. Bar graph

c. Bar graph

d. Circle graph

Lesson 8.3

Core Skill, page 271

$\frac{7}{14}$  or  $\frac{1}{2}$

Think about Math, page 271

1. 20%

2. 4

Workplace Skill, page 273

Option 3; Possible justification: The histogram  
shows that about half of the parties are 3 or 4  
people, so about half of the 15 tables should seat  
4 people. The histogram also shows that there about  
twice as many parties of 1 or 2 people as there  
are parties of 5 or 6 people. This means that of the  
remaining half of the 15 tables, there should be  
about twice as many tables that seat 2 people than  
tables that seat 6 people. Option 3 best meets these  
conditions.

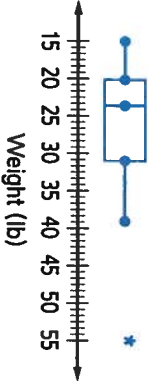
Think about Math, page 273

1. 8

2. about 55.6%

Core Practice, page 275

Pumpkin Weights



Think about Math, page 275

1. least: 10; greatest: 80

2. first: 25; third: 65

3. 55

Vocabulary Review, page 276

- 1. third quartile
- 2. box plot
- 3. dot plot
- 4. first quartile
- 5. histogram
- 6. median
- 7. distribution

Skill Review, page 276-277

1. B

2. A

3. a. greater than

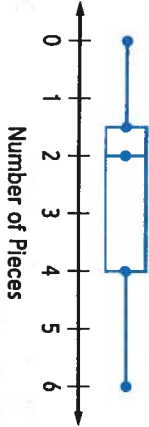
b. less than

c. greater than

d. equal to

4. least value: 0; first quartile: 1.5; median: 2; third  
quartile: 4; greatest value: 6

How Many Pieces of Mail  
Did You Get Today?



5. B  
6. Sandy; you cannot determine the range from a  
histogram because a histogram shows only the  
intervals in which the least and greatest values  
lie, not their actual values.

Skill Practice, page 277

1. A

2. B

3. Possible answer: No; there will be too many  
intervals, and the histogram will be too wide.  
Intervals of 5 or 10 years would be more  
practical.

4. Possible answer: The histogram shows the  
distribution of sales prices in greater detail,  
while the box plot provides essential information  
in a compact form.



Lesson 8.4

Workplace Skill, page 279

\$108

Think about Math, page 279

- 1. Answers will vary.
- 2. Answers vary. Possible answer: A table with 5 rows (where each row represents a designer) and 3 columns (where each column represents a material).

Calculator Skill, page 280

1.65, 0.2

Core Skill, page 281

sample answers: patience, compassion, good communication skills, cheerfulness

Think about Math, page 281

- 1. C
- 2. B

21<sup>st</sup> Century Skill, page 282

Answers will vary.

Core Skill, page 283

sample answer: Only plot the points for Weeks 6 through 8 where there is a decrease and use a vertical scale that has a range only slightly larger than the share prices.

Think about Math, page 283

- 1. D
- 2. sample answer: No, the scores don't represent continuous data. There is no score between games. The data should be graphed with a scatter plot.

Vocabulary Review, page 284

- 1. positive trend
- 2. line graph
- 3. no trend
- 4. scatter plot
- 5. negative trend

Skill Review, page 284–285

- 1. 75 in. or 6 ft 3 in.
- 2. 3
- 3. Dazzle in the 24-oz size.
- 4. Possible answer: years of education and annual income
- 5. A, C, D

Skill Practice, page 285

	Wharton	Essex	Gardner
Wharton	0	6	5
Essex	6	0	12
Gardner	5	12	0

- 1.
- 2. Possible answer: Put cars, vans, and trucks in different sections. In each section, list the manufacturers down the left-hand column and colors across the top row.
- 3. Possible answer: Stretch the vertical axis and start numbering at \$50.
- 4. B

Chapter Review

Review, page 286–287

- 1. A
- 2. 19
- 3. C
- 4. Possible Answer: \$900
- 5. B
- 6. C
- 7. negative trend
- 8. \$3,000
- 9. C

- 10. D
- 11. C
- 12. B