Name Key Date

LESSON 1.1 Practice B
For use with pages 2–9

Write the numbers in increasing order.

3. $2, -\frac{3}{7}, 0.75, -\frac{3}{2}$ $-3/2, -3/7, 0.75, 2$

4. $3, \sqrt{10}, \frac{3}{4}, -1.5$ $-1.5, 3/4, 3, \sqrt{10}$

5. $0, -\sqrt{2}, \sqrt{5}, \frac{13}{4}$ $-\sqrt{2}, 0, \sqrt{5}, 13/4$

Write what each property means mathematically as addition and multiplication and then in words.

6. **Commutative Property –**

7. **Associative Property –**

8. **Identity Property –**

9. **Inverse Property –**

10. **Distributive Property –**

11. **What does *opposite* mean mathmatically?**

12. **What does *reciprocal* mean mathmatically?**

24. **Birthday Cake** Ten classmates are going to share a birthday cake after school. The rectangular birthday cake is 5 pieces long and 4 pieces wide. Each person eats the same number of pieces. How many pieces does each person eat? 2 pieces

LESSON 1.2 Practice B
For use with pages 10–17

Examples: Like terms –

Simplify the expression.

11. $7(5 - 3x) + 5(5x - 3)$ $4x+20$

12. $3x(x - 5) - 2(x^2 - 3)$ $x^2-15x+6$

13. $5(x + 2y) - 3x - 5y$ $2x+5y$

14. $(x - y)(y - x)$ $2xy - x^2 - y^2$

15. $\frac{x^3}{3} + x(x^2 - 1) + x^2\left(\frac{2x}{3} + 1\right)$ x^3+x^2+xy-y

16. $\sqrt{x}(1 - 2\sqrt{x}) + 3(x - 2)$ $x + \sqrt{x} - 6$

LESSON 1.3 Practice B
For use with pages 18–25

Examples:

16. $\frac{1}{2}(14x + 2) = 3(2 - 3x)$ $5/16$

17. $5x = \frac{4}{5}(5x - 2)$ $-8/5$

18. $x + 6 = 3(3 - x)$ $-3/4$

24. **Pay Rate** You need to earn \$475 per week to afford the new car you want to purchase. Your work week is 45 hours. You get 1.5 times the regular hourly rate for overtime (anything over 40 hours). How much does your hourly rate need to be? \$10 hour

25. **Car Bill** The bill for your automobile repairs was \$265.74. The cost for labor was \$52.00 per hour. The cost for materials was \$135.74. How many hours did the mechanic work on your automobile? 2.5 hours.

LESSON 1.4 Practice B

For use with pages 26–32

Examples:

Solve the equation for y. Then find the value of y for the given value of x.

7. $3x - 6y = 6; x = 2$ $y = \frac{1}{2}x - 1$, 0
8. $-2x + 2 = 5y - 1; x = 5$ $y = -\frac{2}{5}x + \frac{3}{5}$, $-\frac{7}{5}$
9. $2xy + 1 = xy + 3; x = 2$ $y = \frac{2}{x}$, 1
10. $\frac{1}{2}x - y = \frac{3}{2}x - 3; x = 7$ $y = -x + 3$, -4
11. $\frac{3}{4}x + \frac{4}{7}y = \frac{5}{4}x - 1; x = 8$ $y = \frac{7}{8}x - \frac{7}{4}$, $\frac{42}{4} \to \frac{21}{2}$
12. $\frac{3}{5}y - 4x = 3 - 2y; x = 9$ $y = \frac{20}{13}x + \frac{15}{13}$, $x = \frac{175}{13}$

Solve the formula for the indicated variable.

13. *Fahrenheit to Celsius*

Solve for F: $C = \frac{5}{9}(F - 32)$ $F = \frac{9}{5}C + 32$

14. *Perimeter of a Parallelogram*

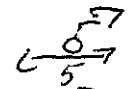
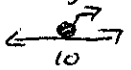
Solve for b: $P = 2b + 2s$ $\frac{P - 2s}{2} = b$

LESSON 1.6 Practice B

For use with pages 41–47

Examples:

Solve the inequality and then graph the solution.

10. $5 - 5x \leq 10$ $x \geq -1$ 
11. $-3x + 7 < -8$ $x > 5$ 
13. $-3x + 6 \leq 6$ $x \geq 0$ 
14. $x + 8 \leq 2x - 2$ $x \geq 10$ 
16. $2 \leq x + 3 \leq 5$
17. $x + 2 \leq -1$ or $x - 2 \geq 1$

LESSON 1.7 Practice B

For use with pages 50–58

Solve the equation.

7. $|x - 3| = 5$ $x = 8, x = -2$
9. $|3x - 3| = 8$ $x = \frac{11}{3}$ $x = -\frac{5}{3}$
10. $|11 - 2x| = 9x$ $x = 1$ $x = -\frac{11}{7}$
12. $|9x - 2| = 7x$

Solve the inequality.

19. $|x + 7| > 3$ $x > -4$ $x < -10$
21. $|4 - x| \leq 8$ $x \geq -4$, $x \leq 12$
22. $\left|\frac{1}{3}x + 4\right| > 1$
24. $|2 - 3x| \geq \frac{2}{3}$ $x \leq \frac{1}{9}$, $x \geq \frac{+8}{9}$