7 – Exercises – Chapter 5

Name Answer Key

Hour 1

Lesson 5.1 Practice — *Algebraic Expressions*

Evaluate each expression if $a = 4, b = 2,$ and $c = 7$

1. $3ac$

84

2. $5b^3$

40

3. abc

56

4. ~~5_{6c}~~ $5+6c$

47

5. $\frac{ab}{8}$

1

6. $ac - 3b$

22

Lesson 5.2 Practice — *Sequences*

Describe the relationship between terms in the arithmetic sequences. Write the next three terms in the sequence.

7. 2, 4, 6, 8, ...

add 2
10, 12, 14

8. 4, 7, 10, 13

add 3
16, 19, 22

9. 0.3, 0.6, 0.9, 1.2, ...

add 0.3
1.5, 1.8, 2.1

10. 200, 212, 224, 236, ...

add 12
248, 260, 272

Lesson 5.3 Practice — *Properties of Operations*

Name the property shown by each statement.

11. $7 \cdot 1 = 7$

Multiplicative Identity

12. $4 + (3y + 2) = (4 + 3y) + 2$

Associative Property of Addition

7 – Exercises – Chapter 5

Lesson 5.4 Practice — *The Distributive Property*

Use the Distributive Property to evaluate or rewrite each expression.

13. $5(w + 4)$

$5w + 20$

14. $(x - 5)(-2)$

$-2x + 10$

15. $7(6x - 2y)$

$42x - 14y$

16. $-6(4 + 2m)$

$-24 + -12m$ or $-24 - 12m$

Lesson 5.5 Practice — *Simplify Algebraic Expressions*

Identify the terms, like terms, coefficients, and constants in each expression.

17. $-4y - 3 + 2y$

terms: $-4y, -3, 2y$
LT: $-4y$ & $2y$
coe: $-4, 2$
con: -3

18. $5 + 3a - 4 - a$

T: $5, 3a, -4, -a$
LT: $5 + -4$, $3a + -a$
coe: $3, -1$
con: $5, -4$

Simplify the expression.

19. $3d + 6d$

$9d$

20. $2 + 5s - 4$

$5s - 2$

21. $2z + 3 - 9z - 8$

$-7z - 5$

Lesson 5.6 Practice

Add Linear Expressions

Add.

22. $(5x + 2) + (3x + 1)$

$8x + 3$

23. $(-8x + 1) + (-2x + 6)$

$-10x + 7$

24. $(-7x + 4) + (x - 5)$

$-6x - 1$

25. $(-6x + 1) + (4x - 1)$

$-2x$

Lesson 4.7 Practice

Subtract Linear Expressions

Subtract

26. $(9x + 10) - (2x + 4)$

$7x + 6$

27. $(3x + 4) - (2x - 5)$

$x + 9$

28. $(6x + 3) - (-x - 2)$

$7x + 5$

29. $(4x - 1) - (x + 3)$

$3x - 4$

Lesson 4.8 Practice — *Factor Linear Expression*

Factor the expression. If it cannot be factored write *cannot be factored.*

30. $15x + 10$

$5(3x + 2)$

31. $7x - 3$

cannot be factored

32. $30x - 25$

$5(6x - 5)$

33. $24x - 18$

$6(4x - 3)$

34. $16x - 12$

$4(4x - 3)$

35. $50x - 75$

$25(2x - 3)$

36. $6x + 9$

$3(2x + 3)$

37. $36x + 45$

$9(4x + 5)$