

(Lessons 1-1 and 1-2)

Write a numerical expression for each verbal phrase.

1. six multiplied by seven

2. twelve more than eight

Evaluate each expression.

3. $2 + 3 \cdot 4$
 $2 + 12$

4. $84 \div (2 \cdot 6) + 5$
 $84 \div 12 + 5$
 $7 + 5$

5. MULTIPLE CHOICE Evaluate $7[(14 + 6) - 2(13 - 7)]$.

A 826

B 71

C 56

D -1

Translate each phrase into an algebraic expression.

6. six inches shorter than Manuel

7. the quotient of four times a number and nine

Evaluate each expression if $d = 11$, $e = 3$, $f = 2$, $g = 18$, and $h = 9$.

8. $h + d - e$
 $9 + 11 - 3$
 $20 - 3$

9. $ef + fg$
 $3 \cdot 2 + 2 \cdot 18$
 $6 + 36$
 42

10. $\frac{2d - 4}{fh}$
 $\frac{22 - 4}{2 \cdot 9}$
 $\frac{18}{18}$

Name the property shown by each statement.

7. $7 \cdot (t + 2) = (t + 2) \cdot 7$

8. $4 \cdot (12 \cdot r) = (4 \cdot 12) \cdot r$

Simplify each expression.

9. $a \cdot (8 \cdot 9)$

$8 \cdot 9 = 72$

10. $15 + (c + 8)$

$15 + 8 = 23$

A ticket service sells concert tickets over the telephone. A \$5.00 processing fee is added to the price of each ticket they sell.

11. Write an algebraic expression to represent the price of each ticket bought through the service.

12. Write an expression to represent the total price of 3 concert tickets if the ticket price is \$16.00. Then evaluate your expression.

$(16 + 5) \cdot 3$
 $(21) \cdot 3$
 $\$63$

1. $6 \cdot 7$

2. $8 + 12$

3. 14

4. 12

5. C

6. $m - 6$

7. $\frac{4x}{9}$

8. 17

9. 42

10. 1

7. Commutative

8. Associative

9. $72 \cdot a$

10. $c + 23$

11. $t + 5$

12. $16 \cdot 3 + 5$

$48 + 5$

$\$53$

9 Chapter 9 Quiz 1

SCORE _____

(Lessons 9-1 through 9-3)

Write each expression using exponents.

1. $x \cdot x \cdot x$

2. $(9 \cdot 9 \cdot 9) \cdot (9 \cdot 9)$

1. x^3
2. 9^5

Evaluate each expression if $x = 2$, $a = 3$, and $b = 2$.

3. $12x^4$

4. a^2b^3

3. 192
4. 72

Write the prime factorization of each number.
Use exponents for repeated factors.

5. 27

6. 63

5. $3 \cdot 3 \cdot 3$
6. $3 \cdot 3 \cdot 7$

Factor each monomial completely.

7. $24b$

8. $30a^2$

7.
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100.

Find each product or quotient.

9. $x^3(5x^5)$

10. $\frac{a^{10}}{a^4}$

10 Chapter 10 Quiz 1

(Lessons 10-1 and 10-2)

Find each square root.

1. $\sqrt{324}$

2. $-\sqrt{676}$

3. $\sqrt{576}$

4. $\sqrt{-784}$

Estimate each square root to the nearest integer.
Do not use a calculator.

5. $\sqrt{50}$

6. $-\sqrt{200}$

5. $\sqrt{50}$
 $\sqrt{49}$ $\sqrt{64}$
7 8
closer $\rightarrow$ 7

6. $-\sqrt{200}$
 $\sqrt{225}$ $\sqrt{196}$
15 14
closer

END UNIT 1

2 Chapter 2 Quiz 1

(Lessons 2-1 and 2-2)

For Questions 1 and 2, replace each $\bullet$ with $<$, $>$, or $=$ to make a true statement.

1. $-2 < -1$

2. $4 > -5$

3. Order the integers $26, -3, 19, 1, -20, -5, 0$ from least to greatest.
 $-20, -5, -3, 0, 1, 26$

Evaluate each expression.

4. $|-13|$

5. $|17| - |-9|$
 $17 - 9$

Evaluate each expression if $a = -1$, $b = 2$, and $c = -8$.

6. $|c| - 4$
 $|-8| - 4$
 $8 - 4$
 4

7. $|a + c| + b$
 $|-1 + (-8)| + 2$
 $|-9| + 2$
 $9 + 2$
 11

Find each sum.

8. $-45 + 8$
 -37

10. $54 + (-6) + 15 + (-54)$
 $54 - 6 + 15 - 54$
 $48 + 15 - 54$
 $63 - 54$
 9

9. $9 + (-26) + 3$
 $9 - 26 + 3$
 $-17 + 3$
 -14

2 Chapter 2 Quiz 2

(Lessons 2-3 and 2-4)

For Questions 1-4, find each difference or product.

1. $-27 + 16$
 -11

2. $45 + (-12)$
 33

3. $(-3)(-54)$
 162

4. $-8t \cdot 3r$
 $-24rt$

5. A helicopter ascended 220 meters to an altitude of 300 meters. Find the original altitude.
 $300 - 220$
 $80m$

6. **Standardized Test Practice** A score of 3 under par is written as -3 . A professional golfer scored 3 under par in each game of a 4-game tournament. What was her final score for the tournament?
 $-3(4)$
 -12

(A) -12

(B) -7

(C) -3

(D) 3

Evaluate each expression if $x = -4$, $y = -1$, and $z = 6$.

7. $z - 11$
 $6 - 11$
 -5

8. $y - 8$
 $-1 - 8$
 -9

9. $y - z - x$
 $-1 - 6 - (-4)$
 $-7 + 4$
 -3

10. $x - y + z$
 $-4 - (-1) + 6$
 $-4 + 1 + 6$
 $-3 + 6$
 3

END UNIT 2

SCORE _____

1. $<$

2. $>$

3. $-20, -5, -3, 0, 1, 26$

4. 13

5. 8

6. 4

7. 11

8. -37

9. -14

10. 9

SCORE _____

1. -43

2. 57

3. 162

4. $-24rt$

5. $80m$

6. A

7. -5

8. -9

9. -3

10. 3

4 Chapter 4 Quiz 1

SCORE _____

(Lessons 4-1 and 4-2)

Use the Distributive Property to write each expression.

- $5(3 + 8)$ $5 \cdot 3 + 5 \cdot 8$
- $4(n + 2)$ $4 \cdot n + 4 \cdot 2$
- $-2(x + 6)$ $-2 \cdot x + -2 \cdot 6$
- $(t - 7)3$ $3 \cdot t - 3 \cdot 7$

Identify the like terms in each expression.

- $12n - 6 + p + 6n$ $12n + 6n$
- $3 + a + 9a - 4$ $a + 9a = 10a, 3 - 4 = -1$

Simplify each expression.

- $4x + 5x$
- $9r - r$
- $6 + 3y - 1$
- $3(a + 2) + a$

$$3a + 3 \cdot 2 + a$$

$$3a + 6 + a$$

- $15 + 40$
- $4n + 8$
- $-2x + (-12)$ or $-2x - 12$
- $3t - 21$

- $18n - 6 + p$, Like terms $12n + 6n$
- $10a - 1$, Like terms $(3, -4)(a, 9a)$

- $9x$
- $8r$
- $5 + 3y$
- $4a + 6$

4 Chapter 4 Quiz 2

SCORE _____

(Lesson 4-3)

Solve each equation.

- $3 + c = 15$
 -3
 $c = 12$
- $x - 24 = 10$
 $+24$
 $x = 34$
- $b + 7 = 19$
 -7
 $b = 12$
- $18 = g - 9$
 $+9$
 $27 = g$

- $7 = t + 11$
 -11
 $-4 = t$
- $16 = q + 5$
 -5
 $11 = q$
- $12 - d = 20$
 -12
 $-d = 8$ so $d = -8$
- $31 = 18 + k$
 -18
 $13 = k$

- $c = 12$
- $t = -4$
- $x = 34$
- $q = 11$
- $b = 12$
- $d = -8$
- $g = 27$
- $k = 13$

- Write and solve an equation for the sentence.
The sum of -10 and a number is -17 .

$$-10 + x = -17$$

$$+10$$

$$x = -7$$

- $x = -7$

- MULTIPLE CHOICE** What value of x makes

$7 - x = 11$ a true statement?

A 18

B 4

☒ C -4

D -18

10. C

$$7 - -4$$

$$7 + 4 = 11$$

(Lessons 4-4 and 4-5)

Solve each equation.

$$1. \quad 4n = 48$$

$$\frac{4n}{4} = \frac{48}{4}$$

$$3. \quad 3b = -21$$

$$\frac{3b}{3} = \frac{-21}{3}$$

$$5. \quad \frac{c}{5} = 6$$

$$\frac{c}{5} \cdot 5 = 6 \cdot 5$$

$$2. \quad -32 = 2y$$

$$\frac{-32}{2} = \frac{2y}{2}$$

$$4. \quad \frac{a}{7} = -9$$

$$\frac{a}{7} \cdot 7 = -9 \cdot 7$$

$$6. \quad -5 = \frac{-m}{8}$$

$$-40 = -m$$

$$so$$

$$m = 40$$

$$1. \quad n = 12$$

$$2. \quad y = -16$$

$$3. \quad b = 7$$

$$4. \quad a = -63$$

$$5. \quad z = 30$$

$$6. \quad m = 40$$

END UNIT 4