Name _____ Date _____ Class _____

LESSON 1-7

Practice A

Variables and Algebraic Expressions

Find the value of $n + 3$ for each value of n.

1. $n = 4$ _____

2. $n = 7$ _____

3. $n = 0$ _____

4. $n = 32$ _____

Find the value of $x - 9$ for each value of x.

5. $x = 12$ _____

6. $x = 57$ _____

7. $x = 19$ _____

8. $x = 100$ _____

Find the value of each expression using the given value for each variable.

9. $3n$ for $n = 4$ _____

10. $x + 8$ for $x = 8$ _____

11. $9p - 6$ for $p = 2$ _____

12. $n \div 5$ for $n = 35$ _____

13. $6x + 18$ for $x = 0$ _____

14. $s - 7$ for $s = 8$ _____

15. $3w + 5$ for $w = 3$ _____

16. $c - 9$ for $c = 12$ _____

17. $2a \div 3$ for $a = 6$ _____

18. $y + z$ for $y = 10$ and $z = 20$ _____

19. $3w - 2v$ for $w = 7$ and $v = 8$ _____

20. $4a \div b$ for $a = 6$ and $b = 4$ _____

21. $5s + 4t$ for $s = 3$ and $t = 4$ _____

22. The expression $7w$ gives the number of days in w weeks. Find the value of $7w$ for $w = 20$. How many days are there in 20 weeks? _____

23. A cat can run as fast as $m \div 2$ miles per minute in m minutes. Find the value of $m \div 2$ for $m = 10$. How many miles can a cat run in 10 minutes? _____

24. Tyrone works 8 hours a day. You can use the expression $8d$ to find the total number of hours he works in d days. How many hours does he work in 5 days? _____

Name _____ Date _____ Class _____

LESSON 1-7

Practice B

Variables and Algebraic Expressions

Evaluate $n - 5$ for each value of n.

1. $n = 8$ _____

2. $n = 121$ _____

3. $n = 32$ _____

4. $n = 59$ _____

Evaluate each expression for the given values of the variable.

5. $3n + 15$ for $n = 4$ _____

6. $h \div 12$ for $h = 60$ _____

7. $32x - 32$ for $x = 2$ _____

8. $\frac{c}{2}$ for $c = 24$ _____

9. $(n \div 2)5$ for $n = 14$ _____

10. $8p + 148$ for $p = 15$ _____

11. $e^2 - 7$ for $e = 8$ _____

12. $3d^2 + d$ for $d = 5$ _____

13. $40 - 4k^3$ for $k = 2$ _____

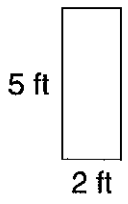
14. $2y - z$ for $y = 21$ and $z = 19$ _____

15. $3h^2 + 8m$ for $h = 3$ and $m = 2$ _____

16. $18 \div a + b \div 9$ for $a = 6$ and $b = 45$ _____

17. $10x - 4y$ for $x = 14$ and $y = 5$ _____

18. You can find the area of a rectangle with the expression lw where l represents the length and w represents the width. What is the area of the rectangle at right in square feet?



_____

19. Rita drove an average of 55 mi/h on her trip to the mountains. You can use the expression $55h$ to find out how many miles she drove in h hours. If she drove for 5 hours, how many miles did she drive?

_____

Name _____ Date _____ Class _____

LESSON 1-8

Practice A

Translate Words Into Math

Write as an algebraic expression.

1. the sum of m and 8

_____

2. the product of 3 and n

_____

3. 4 less than x

_____

4. the quotient of a number and 12

_____

5. 52 times a number

_____

6. w less than 15

_____

7. the sum of 13 and a number

_____

8. the product of 5 and p, increased by 10

_____

9. the sum of 15 divided by b and 6

_____

10. 12 less than the amount y divided by 2

_____

11. 26 increased by 12 times a number _____

12. the difference of 2 times a number and 6 _____

13. the product of h and 3, increased by 20 _____

14. 18 less than the product of a number and 4 _____

15. take away 32 from the product of 6 and a number _____

16. Used video games cost $25 each. Write an algebraic expression to find the cost of m video games. _____

17. Sal earned $740 for n weeks of work. Write an algebraic expression for the amount he earned each week. _____

18. At the end of the 2004–2005 NBA season, Reggie Miller was the all-time leader in 3-point field goals made. He made n more field goals than Dale Ellis. Dale Ellis made 1,719 3-pointers. Write an algebraic expression to find the number of 3-pointers Reggie Miller made. _____

19. The $2 bill has Thomas Jefferson on the front of it. Write an algebraic expression to find out how much money v bills with Thomas Jefferson on them would be worth. _____

Name _____ Date _____ Class _____

LESSON 1-8

Practice B

Translate Words Into Math

Write each phrase as an algebraic expression.

1. 125 decreased by a number _____

2. 359 more than z _____

3. the product of a number and 35 _____

4. the quotient of 100 and w _____

5. twice a number, plus 27 _____

6. 12 less than 15 times x _____

7. the product of e and 4, divided by 12 _____

8. y less than 18 times 6 _____

9. 48 more than the quotient of a number and 64 _____

10. 500 less than the product of 4 and a number _____

11. the quotient of p and 4, decreased by 320 _____

12. 13 multiplied by the amount 60 minus w _____

13. the quotient of 45 and the sum of c and 17 _____

14. twice the sum of a number and 600 _____

15. There are twice as many flute players as there are trumpet players in the band. If there are n flute players, write an algebraic expression to find out how many trumpet players there are. _____

16. The Nile River is the longest river in the world at 4,160 miles. A group of explorers traveled along the entire Nile in x days. They traveled the same distance each day. Write an algebraic expression to find each day's distance. _____

17. A slice of pizza has 290 calories, and a stalk of celery has 5 calories. Write an algebraic expression to find out how many calories there are in a slices of pizza and b stalks of celery. _____

18. Grant pays 10¢ per minute plus $5 per month for telephone long distance. Write an algebraic expression for m minutes of long-distance calls in one month. _____