Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_

**Write an algebraic expression for each word phrase.**

**1.** 13 more than the product of 2 and *j* **2.** 8 less than the quotient of 4 and *p*

**Write a word phrase for each algebraic expression.**

**3.** 2*t –* 9  **4.** 0.5 (*y +* 3.3)

**5.** The cost of a telephone call is 75 cents plus 25 cents times the number of minutes. Write an algebraic expression that models the cost of a telephone call that lasts *t* minutes.

**Simplify each expression.**

**6.** 42 + 8 ÷ 2 **7.** 9 – (3 + 1)2 **8.** 2 + 6 • 8 ÷ 4 **9.** 5 + 4 • (8 – 6)2

**Use the formula for the area of a trapezoid , where *A* is area,**

***b*1 and *b*2 are the length of the bases and *h* is the height, to answer each question.**

**10**. What is the area of a trapezoidal pool with a height of 15 yd and bases of 14 yd and 26 yd?

**11**. How many square feet of grass are there on a trapezoidal field with a height of 75 ft and bases of 125 ft and 81 ft?

**Estimate each square root. Round to the nearest integer.**

**12.  13. **

**Name the subset(s) of the real numbers to which each number belongs.**

**14.  15.** 4 **16.  17.** 0

**Order the numbers in each exercise from least to greatest.**

**18. , **

**Simplify each expression.**

**19.** 9 + 2*p +* 3 **20.** [4 + (–4)]*y*

**21.  22.** 8 • (2*y*)

**Identify the property of real numbers shown in each situation.**

23. The cost of one item sold for $14.50 is $14.50.

24. You can find the cost of fish by multiplying the price per pound by the amount or by multiplying the amount by the price per pound.

25. To find total time spent doing homework in a week, you add the amount from each day. You find that the total is the same no matter what order you use.

**Use deductive reasoning to tell whether each statement is *true* or *false*. If it is false, give a counterexample.**

26. For all real numbers *a* and *b*, *a –* *b =* *b –* *a*.

27. For all real numbers *x*, *x •* 0 = 0.

**Simplify each expression.**

**28.** (–3)2 **29. –**32 **30.  31. **

**Use the Distributive Property to simplify each expression.**

**32.** –4(*a +* 3) **33.  34. **

**Tell whether each equation is *true*, *false*, or *open*. Explain.**

**35.** 6 – *t =* 12 **36.** 7 + (–5) = 12 **37.** 31 – 15 = 22 + (–3)2

**Tell whether the given number is a solution of each equation.**

**38.** 9 = 2*a +* 3; 3 **39.** 5*n –* (–30) = 5; 7

**40.** A plumber charges $65 per hour to fix a leak. What is an equation that relates the total cost of a leak repair *c* to the number of hours *h* it takes the plumber to fix the leak?

**Tell whether the given ordered pair is a solution of the equation.**

**41.** *y =* –*x –* 2; (1, –3) **42.** *y =* 3(5 – *x*); (3, 6)

**Use the table to draw a graph and answer the question.**

**43.** The table shows the total cost of apples at a roadside stand. What is the cost of 7 bushels of apples?