

Simplify each expression.

1.  $6y + 8 + 2y + 5$

$$8y + 8 + 5$$

$$8y + 13$$

2.  $9 + 5a - 2 + 3a$

$$7 + 5a + 3a$$

$$7 + 8a$$

3.  $6r + 2r + 4$

$$8r + 4$$

4.  $3m + 5m - 10 + 7$

$$8m - 10 + 7$$

$$8m - 3$$

5.  $5w + 4 - 3w - 2$

$$2w + 4 - 2$$

$$2w + 2$$

6.  $5 - 4p + 6p$

$$5 + 2p$$

7.  $3a + 2b + 5a - 7b$

$$8a + 2b - 7b$$

$$8a - 5b$$

8.  $3x - 5x + 4y + y$

$$-2x + 4y + y$$

$$-2x + 5y$$

9.  $5d + 8 - 8d$

$$-3d + 8$$

10.  $3t + 2h - 5 + 7h$

$$3t + 9h - 5$$

11.  $6d + 2 - 4d + 10 + 2d$

$$2d + 2 + 10 + 2d$$

$$4d + 2 + 10$$

$$4d + 12$$

12.  $5g - 9 - g$

$$4g - 9$$

**Translate to an algebraic expression.**

13. The quotient of a number  $d$  and four

$$\frac{d}{4}$$

14. The total of 5 and a number  $n$

$$5 + n$$

15. The difference of a number and ten

$$n - 10$$

16. Twice a number increased by six

$$2n + 6$$

17. Eight decreased by a number  $h$

$$8 - h$$

18. The product of a number and two increased by that number

$$n \cdot 2 + n$$

or

$$2n + n$$

**Write an algebraic expression for each situation. Answer the question.**

19. You buy four candy bars at a cost of  $p$  dollars per candy bar. What is the total cost?

$$4 \cdot p$$

20. Donuts cost 2 dollars. You buy  $d$  amount of donuts. What is the total cost?

$$2 \cdot d$$

21. There are  $p$  people in a Google Meet. Seven people leave. How many people are in the Google Meet?

$$p - 7$$

22. Bob has 5 pies. He bakes 2 pies every hour. How many pies does he have after  $h$  hours?

$$5 + 2h$$

23. Deidra has 20 friendship bracelets. She gives  $b$  bracelets away to friends. How many bracelets does she have left?

$$20 - b$$

24. Anthony has a dog walking business. He has 12 good reviews and gets 4 more every day. How many good reviews does he have after  $d$  days?

$$12 + 4d$$