

## Chapter 5 Study Guide

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

1.  $9x + 2 + 8y$

2.  $3x^2 + x + 7$

**USING EXPONENTS** Write the expression using exponents.

25.  $5.2 \cdot y \cdot y \cdot y$

26.  $a \cdot a \cdot c \cdot c$

27.  $2.1 \cdot x \cdot z \cdot z \cdot z \cdot z$

**EVALUATING EXPRESSIONS** Evaluate the expression when  $a = 3$ ,  $b = 2$ , and  $c = 12$ .

31.  $6 + a$

33.  $c - 1$

**Try It** Write the phrase as an expression.

3. 25 less than a number  $b$

4. a number  $x$  divided by 4

5. the total of a number  $t$  and 11

6. 100 decreased by a number  $k$

---

**Try It** Simplify the expression. Explain each step.

1.  $10 + (a + 9)$

2.  $\left(c + \frac{2}{3}\right) + \frac{1}{2}$

3.  $5(4n)$

**IDENTIFYING PROPERTIES** Tell which property the statement illustrates.

19.  $5 \cdot p = p \cdot 5$

20.  $2 + (12 + r) = (2 + 12) + r$

21.  $4 \cdot (x \cdot 10) = (4 \cdot x) \cdot 10$

22.  $x + 7.5 = 7.5 + x$

23.  $(c + 2) + 0 = c + 2$

24.  $a \cdot 1 = a$

**Try It** Use the Distributive Property to simplify the expression.

1.  $7(a + 2)$

2.  $3(d - 11)$

3.  $12\left(a + \frac{2}{3}b\right)$

4.  $7(2 + 6 - 4d)$

**Try It** Simplify the expression.

5.  $8 + 3z - z$

6.  $3(b + 5) + b + 2$

**Try It** Factor the expression using the GCF.

4.  $7x + 49$

5.  $8y - 44$

6.  $25a + 10b$

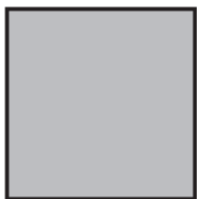
---

**WE WILL DO THE FOLLOWING TOGETHER IN CLASS**

13. A youth club receives a discount on each pizza purchased for a party. The original price of each pizza is  $x$  dollars. The club leader purchases 8 pizzas for a total of  $(8x - 32)$  dollars. Factor the expression. What can you conclude about the discount?

13. The amount earned (in dollars) for recycling  $p$  pounds of copper is  $2p$ . How much do you earn for recycling 28 pounds of copper?

Write an expression using exponents that represents the area of the square.



$7x$

21. Your basketball team scored 4 fewer than twice as many points as the other team.
- Write an expression that represents the number of points your team scored.
  - The other team scored 24 points. How many points did your team score?