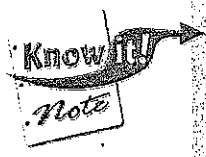
THINK AND DISCUSS

1. Tell which property is described by this sentence: When adding three numbers, you can add the first number to the sum of the second and third numbers, or you can add the third number to the sum of the first and second numbers.



2. **GET ORGANIZED** Copy and complete the graphic organizer below. In each box, give an example to illustrate the given property.

Associative	Commutative	Distributive

1-7 Exercises

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GUIDED PRACTICE

1. **Vocabulary** The ___?___ Property states the following: $(a + b) + c = a + (b + c)$. (*Associative, Commutative,* or *Distributive*)

SEE EXAMPLE 1 p. 46

Simplify each expression.

2. $-12 + 67 + 12 + 23$
3. $16 + 2\frac{1}{2} + 4 + 1\frac{1}{2}$
4. $27 + 98 + 73$
5. $\frac{1}{3} \cdot 8 \cdot 21$
6. $2 \cdot 38 \cdot 50$
7. $50 \cdot 118 \cdot 20$

SEE EXAMPLE 2 p. 47

Write each product using the Distributive Property. Then simplify.

8. $14(1002)$
9. $16(19)$
10. $9(38)$
11. $8(57)$
12. $12(112)$
13. $7(109)$

SEE EXAMPLE 3 p. 48

Simplify each expression by combining like terms.

14. $6x + 10x$
15. $35x - 15x$
16. $-3a + 9a$
17. $-8r - r$
18. $17x^2 + x$
19. $3.2x + 4.7x$

SEE EXAMPLE 4 p. 48

Simplify each expression. Justify each step with an operation or property.

20. $5(x + 3) - 7x$
21. $9(a - 3) - 4$
22. $5x^2 - 2(x - 3x^2)$
23. $6x - x - 3x^2 + 2x$
24. $12x + 8x + t - 7x$
25. $4a - 2(a - 1)$

PRACTICE AND PROBLEM SOLVING

Simplify each expression.

26. $53 + 28 + 17 + 12$
27. $5 \cdot 14 \cdot 20$
28. $6 \cdot 3 \cdot 5$
29. $4.5 + 7.1 + 8.5 + 3.9$

Write each product using the Distributive Property. Then simplify.

30. $9(62)$
31. $8(29)$
32. $11(25)$
33. $6(53)$

1-8 Exercises

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GUIDED PRACTICE

1. **Vocabulary** Explain why the order in an *ordered pair* is important.

SEE EXAMPLE 1 p. 54

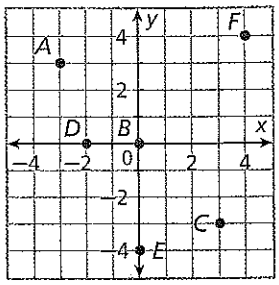
Graph each point.

2. $J(4, 5)$
3. $K(-3, 2)$
4. $L(6, 0)$
5. $M(1, -7)$

SEE EXAMPLE 2 p. 54

Name the quadrant in which each point lies.

6. A
7. B
8. C
9. D
10. E
11. F



SEE EXAMPLE 3 p. 55

12. **Multi-Step** The number of counselors at a summer camp must be equal to $\frac{1}{4}$ the number of campers. Write a rule for the number of counselors that must be at the camp. Write ordered pairs for the number of counselors when there are 76, 100, 120, and 168 campers.

SEE EXAMPLE 4 p. 55

Generate ordered pairs for each function for $x = -2, -1, 0, 1$, and 2. Graph the ordered pairs and describe the pattern.

13. $y = x + 2$
14. $y = -x$
15. $y = -2|x|$
16. $y = \frac{1}{2}x^2$

PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
17–20	1
21–26	2
27	3
28–31	4

Extra Practice

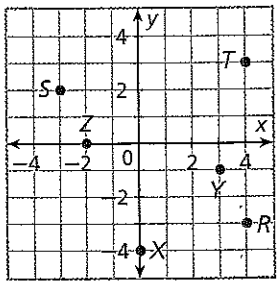
Skills Practice p. S5
Application Practice p. S28

Graph each point.

17. $D(2, 8)$
18. $E(-2, -7)$
19. $F(0, -5)$
20. $G(4, -4)$

Name the quadrant in which each point lies.

21. X
22. Y
23. Z
24. R
25. S
26. T



27. **Multi-Step** Jeremy's wages include a $500 base salary plus $\frac{1}{10}$ of his sales. Write a rule for the total amount of Jeremy's paycheck. Write ordered pairs for the amount of Jeremy's paycheck when his sales are $500, $3000, $5000, and $7500.

Generate ordered pairs for each function for $x = -2, -1, 0, 1$, and 2. Graph the ordered pairs and describe the pattern.

28. $y = 6 - 2x$
29. $y = -(x^2)$
30. $y = 3|x|$
31. $y = x^2 + 3$

Geometry Graph each point and connect them in the order they are listed. Connect the last point to the first. Describe the figure drawn.

32. $(-1, 1), (4, 1), (4, -4), (-1, -4)$
33. $(-6, 3), (2, -2), (-7, -3)$
34. $(4, 4), (6, 2), (5, -1), (3, -1), (2, 2)$
35. $(-6, 5), (4, 5), (4, 7), (-6, 7)$

36. **Multi-Step** The salary at Beth's company is $32,000 for someone with no experience and increases by $2700 per year of experience. Write a rule for the salary at Beth's company. Write ordered pairs for the salaries for employees with 0, 2, 5, and 7 years of experience.