

1. Simplify: $16 \div 4 \cdot 4 + 7 - 6$

2. Evaluate $\frac{jk}{j+k}$ when $j = 7$ and $k = 15$.

3. Which law is illustrated by the following statement?

$$5 \cdot (4 \cdot 2) = (5 \cdot 4) \cdot 2$$

[A] associative law of multiplication

[B] commutative law of addition

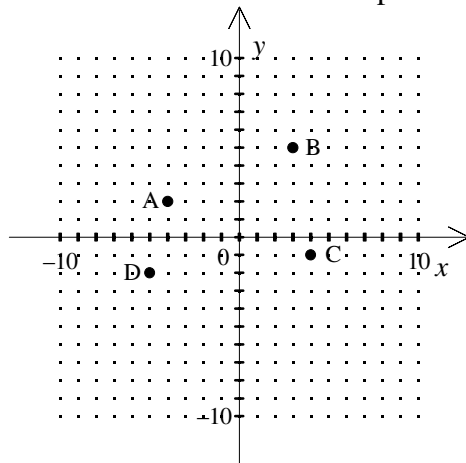
[C] associative law of addition

[D] commutative law of multiplication

4. Simplify: $3x + 3 + 4x + 5$ [A] $7x + 8$ [B] $-x + 8$ [C] $-x - 2$ [D] $7x - 2$

5. Graph the point $C(2, -3)$.

6. Name the coordinates of the points A, B, C, and D.



7. Simplify: $|-12|$

8. Add: $3 + (-10)$

9. Subtract: $-12 - 12$

10. Multiply: $-8 \cdot (-4)$

11. Divide: $45 \div (-5)$

12. Insert $=$, $<$, or $>$ to make a true statement: $\frac{11}{35}$ _____ $\frac{3}{7}$

13. Multiply: $\frac{2}{21} \cdot \frac{12}{26}$

14. Divide: $\frac{18}{7} \div \frac{9}{2}$

Add:

15. $\frac{4}{10} + \frac{9}{10} + \frac{2}{10} + \frac{6}{10}$

16. $\frac{1}{3} + \frac{1}{6}$

17. Multiply: $-6(x + 6)$

Solve:

18. $17 = m + 5$

19. $30 = 6y$

20. $4x + 1 = 29$

21. When a number is decreased by 13, the result is 4. Find the number.

22. When a number is decreased by 31, the result is 47. Find the number.

23. Solve: $6x + 8 = x + 3$

24. Graph: $x \leq 7$

25. Solve: $-3x + 6 < -6$

26. Name the fraction that shows the ratio of 2 cans to 4 cans.

27. Solve: $\frac{5}{4} = \frac{h}{20}$

28. Convert 28 feet to yards.

29. Write $\frac{3}{5}$ as a percent.

30. Write 45.1% as a decimal.

31. Write 0.0066 as a percent.

32. Write 14% as a reduced fraction.

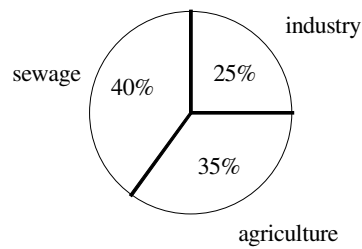
33. What is 35% of 400?

34. 4 is what percent of 40?

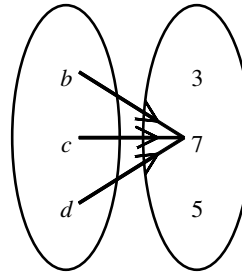
35. 6 is 40% of what number?

36. The circle graph below represents the main sources of water pollution. According to the circle graph, which is the main source of water pollution?

Source of Water Pollution



37. Determine whether each relation is a function.



38. Graph: $2x + y = 4$
39. Find the slope of the line containing the points $(7, -5)$ and $(10, 12)$.
40. Write the slope-intercept form of the equation of the line that has slope 2 and passes through the point $(-1, 2)$.
41. Evaluate the variable expressions when $a = 3$.
A. $3a^2$
B. $(3a)^2$
42. Write as a fraction and simplify.
 8^{-2}

43. Write the number in decimal form.

$$3.94 \times 10^9$$

44. Write the number in scientific notation.

$$3,780,000$$

Simplify the expression.

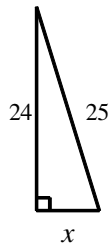
45. $(3v w)^3$

46. $8^3 \times 8^5$ [A] 64^8 [B] 8^8 [C] 8^{15} [D] 8^2

47. Given that $f(x) = x^2$, complete the table and sketch the quadratic function.

x	-2	-1	0	1	2
$f(x)$					

48. Solve for x .



49. Find the distance between points $P(-3, -1)$ and $Q(5, 2)$.