

CP Algebra I Summer Packet

1. Is 112 prime or composite?
a. composite b. prime

Find the greatest common factor of the numbers.

2. 14 and 38
3. 35, 63, and 84

Find the least common multiple of the set of numbers.

4. 5 and 20
5. 6, 9, and 12

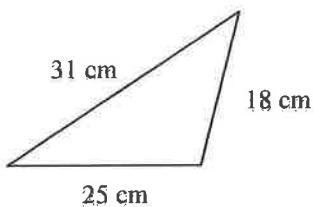
6. Identify the fraction that is equivalent to $\frac{5}{7}$.
a. $\frac{25}{28}$ b. $\frac{20}{35}$ c. $\frac{30}{35}$ d. $\frac{25}{35}$

Find the value of x that completes the statement.

7. $\frac{2}{5} = \frac{8}{x}$
8. $\frac{x}{36} = \frac{10}{6}$

Find the perimeter of the figure.

9.



Drawing not to scale

10. List all the factors of 16.

Evaluate the expression when $w = -2$, $x = 3$, $y = -5$, $z = 6$ and $p = 9$.

11. $y + 3.4$

12. $2p + 5.4$

13. $\frac{2.5w + 2.5}{0.5}$

14. $\frac{x^2}{p}$

15. $2.1z + p$

What is an algebraic expression for the word phrase?

16. the sum of n and 9

- a. $n - 9$ b. $n + 9$ c. $\frac{n}{9}$ d. $9n$

17. the difference of r and 3

- a. $\frac{r}{3}$ b. $r + 3$ c. $r - 3$ d. $3r$

18. the product of g and 4

- a. $4g$ b. $g + 4$ c. $\frac{g}{4}$ d. $g - 4$

19. the quotient of j and 8

- a. $\frac{j}{8}$ b. $8j$ c. $j - 8$ d. $j + 8$

20. 3 times the sum of b and f

- a. $3 + b + f$ b. $3bf$ c. $3(b + f)$ d. $3b + f$

What word phrase can you use to represent the algebraic expression?

21. $3m$

- a. three divided by a number m c. three times a number m
b. three minus a number m d. three plus a number m

22. $5x + 2$

- a. five times the sum of a number x and two c. a number x times the sum of five and two
b. two times the sum of a number x and five d. the sum of five times a number x and two

What is the simplified form of each expression?

23. $2(15 - 3)^2 \div 4$

24. $3(15 - 1)^2 \div 2$

25. $4(20 + 12) \div (4 - 3)$

26. $6(18 + 5) \div (6 - 3)$

27. $3^3 \cdot 32 + 12 \div 4$

Simplify each expression.

28. $\frac{4sg}{-5g}$

- a. $-\frac{4}{5}s$ b. $\frac{4}{5}g$ c. $-\frac{5}{4}s$ d. $-\frac{5}{4}g$

29. $\frac{5xb}{-4b}$

- a. $-\frac{5}{4}x$ b. $\frac{5}{4}b$ c. $-\frac{4}{5}b$ d. $-\frac{4}{5}x$

30. $(8 + 7a) + 4$

- a. $12 + 11a$ b. $19a$ c. $8 + 11a$ d. $12 + 7a$

31. $(-5 + 2q) + 9$

- a. $6q$ b. $4 + 11q$ c. $-5 + 11q$ d. $4 + 2q$

32. $-10(9n)$

33. $-9(9a)$

What is the solution of the equation?

34. $3 = b + 3$

- a. 0 b. 1 c. 9 d. 6

35. $4 = q + 3$

- a. 12 b. $\frac{4}{3}$ c. 7 d. 1

36. $w - 2 = -3$

- a. $-\frac{3}{2}$ b. -5 c. -1 d. 6

37. $m - 1 = -3$

- a. 3 b. -4 c. -2 d. -3

- ____ 38. $3.4 = 2p$
- a. $\frac{1}{2}$ b. 3.4 c. 1.7 d. 0.3
- ____ 39. $-7 = \frac{h}{5}$
- a. $-\frac{7}{5}$ b. 35 c. 12 d. -35
- ____ 40. $-4 = \frac{q}{4}$
- a. 8 b. -16 c. 16 d. -1
- ____ 41. $-9 = \frac{5}{17}n$
- a. $-\frac{153}{5}$ b. $-\frac{5}{153}$ c. $-\frac{17}{45}$ d. $-\frac{45}{17}$

What is the solution of the equation?

42. $16 = -d + 6$

43. $19 = -d + 15$

What is the solution of the equation?

44. $2 = 6p - 8 - 5p$

45. $3 = -9p - 6 + 10p$

46. $5d - d - 2d + 8 - 3d = 0$

What is the solution of the equation?

47. $4(y + 2) = 32$

48. $3(y - 5) + 2 = 5$

What is the solution of the equation?

49. $6x - 3 = 5x - 5$

50. $6 - t = 2t$