8th Grade Summer Math
2025-2026

Section 1: Evaluating Expressions

Directions: Evaluate each expression. Show your work and circle your final answer.

1. Evaluate $3x + 4$ when $x = 2$.	2. Evaluate $6m + 2n$ when $m = 1$ and $n = 3$.
3. Evaluate $5a - 6$ when $a = 3$.	4. Evaluate $(3x)(y)$ when $x = 2$ and $y = 3$.
5. Evaluate $8 - 2b$ when $b = 5$.	6. Evaluate $7xy$ when $x = 14$ and $y = 2$
7. Evaluate $10 - (2x + 1)$ when $x - 4$.	8. Evaluate $(x + y)(x - y)$ when $x = 5$ and $y = 2$.

Section 2: Simplifying Expressions

Directions: Combine like terms to simplify the expression. Use the distributive property when necessary. Show your work and circle your final answer.

9. Simplify. $-8(5-3x)+12$	10. Simplify. $2w \cdot 9 + 6w + 5$
11. Simplify. $7(-4m+5)$	12. Simplify. $3(p+q+7)$
13. Simplify. $4a+7+3a-2$	14. Simplify. $4c-2c(14+d)$.
15. Simplify. $-6(5z+12)$	16. Simplify. $11a+7b-15a-5b$

Section 3: Fraction and Decimal Operations

Directions: Add, subtract, multiply or divide. Use the rules for integer operations to solve. Show your work and circle your final answer.

17. $\frac{1}{2} - \frac{3}{4}$	18. $\frac{6}{7} \div \frac{2}{3}$
19. $\frac{3}{4} \times (-\frac{4}{9})$	20. $-\frac{5}{6} + \frac{1}{3}$
21. $-3.5 - 2.8$	22. $(-4.2)(-1.5)$
23. $3.2 \div 0.5$	24. $5.5 + 4.5$

Section 4: Solving One-Step Equations

Directions: Use inverse operations to solve each equation. Show your work and circle your final answer.

25. Solve for x. $x + 5 = 12$	26. Solve for z. $3z = 18$
27. Solve for a. $\frac{a}{2} = 7$	28. Solve for y. $y - 3 = 9$
29. Solve for h. $h - (-2) = 6$	30. Solve for u. $-4 + u = 6$
31. Solve for p. $-7 + p + 9 = -2$	32. Solve for v. $22 - 8 = (-2) + v + (-7)$

Section 5: Solving Multi-Step Equations

Directions: Use inverse operations to solve each equation. Show your work and circle your final answer.

33. Solve for x. $5x - 6 = 19$	34. Solve for a. $\frac{a}{10} + 14 = 5$
35. Solve for x. $5 = \frac{-25}{x}$	36. Solve for e. $-23e + 168 = 76$
37. Solve for b. $7(b - 2) = 21$	38. Solve for v. $8v - 2 = 9v + 21$
39. Solve for m. $-4m + 7 = -5$	40. Solve for j. $\frac{5j-6}{9} + 1 = 12$

Section 6: Order of Operations

Directions: Use PEMDAS to simplify each expression. Show your work and circle your final answer.

41. $4 + 8 \cdot (-9)$	42. $12 \cdot 4 - 72 \div 9$
43. $-5(-4) - (3^2)$	44. $\frac{(9-16)^2}{3^2-12-4}$
45. $(28 - 10^2) \div 2^3$	46. $9 \cdot 4 - 3^2 + 5 \cdot 2$
47. $45 \div 9 - 3 + 7 \cdot 3$	48. $\frac{(6-7)(5-3)-18}{2(7-9)-[3(-4)]}$

Section 7: Solving Inequalities

Directions: Use inverse operations to solve each inequality. Show your work and circle your final answer.

49. Solve for a. $a + 14 \geq -8$	50. Solve for p. $p - 4 \leq -1$
51. Solve for w. $-3w < 27$	52. Solve for n. $\frac{n}{15} > -4$
53. Solve for x. $9 - x \geq 10$	54. Solve for y. $-4y + 5 < -31$
55. Solve for k. $22k - 19 - 4k < 21$	56. Solve for z. $8z - 3 \leq 6x + 5$

Section 8: Integer Operations

Directions: Use the rules for integer operations to evaluate each expression. Show your work and circle your final answer.

57. $46 + (-32)$	58. $-15 + (-5) + 23$
59. $76 - (-84)$	60. $42 - 67$
61. $-8(-10)$	62. $-2(-4)(5)(-2)$
63. $-20 \div 5$	64. $-12 \div (-6)$

Additional Resources

The following games and websites are available for additional practice.

- Virtual Number Line: https://www.coolmath4kids.com/manipulatives/number-line
- Tang Math Games: https://tangmath.com/games
- Math Minute: https://webmathminute.com/
- All Ten: https://beastacademy.com/all-ten
- Nerdle: https://nerdlegame.com/?v=202505221222
- Number Hive: https://play.numberhive.org/lobby