

Review: Order of operations and Operations with rational numbers**Simplify.**

1. $12 - 30 \div 5$
2. $17 - 20 \cdot 5 \div 10 + 24$
3. $3 \times (9 + 4) + 8$
4. $[4 \cdot (4 + 7)] - 10$
5. $4 \left[(15 - 1)^2 \div 2 \right]$
6. $9(6 + 19) \div (9 - 6)$

Find the sum.

7. $3 + 5 + (-5)$
8. $-4 + 7$
9. $-2 + (-3)$
10. $-9.4 + 1.4$

Simplify the product.

11. $8(-8)$
12. $-5(-4)$
13. Find the quotient $-81 \div 9$.

Find the sum or difference. Write your answer as a mixed number or a fraction in simplest form.

14. $\frac{2}{3} + \frac{7}{8}$
15. $\frac{7}{8} + \left(-\frac{1}{12}\right)$

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16. $\frac{7}{8} - \frac{1}{4}$

17. $\frac{5}{6} - (-\frac{1}{3})$

Find the product.

18. $\frac{4}{5} \cdot (-\frac{7}{9})$

19. $-\frac{1}{8} \cdot \frac{5}{6}$

Find the quotient.

20. $\frac{1}{9} \div \frac{3}{8}$

21. $\frac{5}{8} \div (-\frac{5}{9})$

Solve the equation.

22. $14 = t - 44$

23. $-30 = j + 50$

24. $-12x = -48$

25. $\frac{j}{-11} = -11$

26. $2.8x = -9.24$

27. $5.8 = \frac{z}{2.2}$

28. $\frac{r}{7} = -8$

29. $x - 1 = -34$

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$$30. \frac{x}{-7} + 10 = 7$$

$$31. 11.3x + 7.2 = 86.3$$

$$32. 0.2 = \frac{x}{5} - 1.4$$

$$33. \frac{n - 6}{-4} = 6$$

34. Patricia owned so many posters that she decided to sell 77 of them to her friends. After selling the posters, she still had 186 left. Write and solve an equation to find the number of posters p Patricia had originally.

Solve the equation.

$$35. \frac{y - 5}{3} = 1$$

$$36. 6x + 29 = 5$$

$$37. -9p - 17 = 10$$

$$38. \frac{w}{4} - 4 = 3$$

$$39. \frac{d}{3} + 10 = 7$$