

Two-Step Equations

Date _____ Period _____

Solve each equation.

1) $6 = \frac{a}{4} + 2$

2) $-6 + \frac{x}{4} = -5$

3) $9x - 7 = -7$

4) $0 = 4 + \frac{n}{5}$

5) $-4 = \frac{r}{20} - 5$

6) $-1 = \frac{5+x}{6}$

7) $\frac{v+9}{3} = 8$

8) $2(n+5) = -2$

9) $-9x + 1 = -80$

10) $-6 = \frac{n}{2} - 10$

11) $-2 = 2 + \frac{v}{4}$

12) $144 = -12(x+5)$

13) $-15 = -4m + 5$

14) $10 - 6v = -104$

15) $8n + 7 = 31$

16) $-9x - 13 = -103$

17) $\frac{n+5}{-16} = -1$

18) $-10 = -10 + 7m$

19) $-10 = 10(k-9)$

20) $\frac{m}{9} - 1 = -2$

21) $9 + 9n = 9$

22) $7(9+k) = 84$

23) $8 + \frac{b}{-4} = 5$

24) $-243 = -9(10+x)$

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{17}

Division of Polynomials-Long Division

Define the following

Dividend

Quotient

Divisor

Remainder

Divide $(x^2 + 5x - 7) \div (x + 3)$

Divide $\frac{6 - 6x^2 + 4x^3}{2x + 3}$

Divide $\frac{12x^2 - 11x + 10}{4x - 5}$

Divide $\frac{x^3 + 1}{x + 1}$

Simplifying Rational Expressions

A rational expression is in its simplest form when the numerator and denominator have no common factors other than 1.

Simplify:

$$\frac{x^2 - 25}{x^2 + 13x + 40}$$

$$\frac{x^2 - 16}{x^2 + 11x + 28}$$

$$\frac{12 + 5x - 2x^2}{2x^2 - 3x - 20}$$

$$\frac{x^{2n} + x^n - 2}{x^{2n} - 1}$$

$$\frac{20x - 15x^2}{15x^3 - 5x^2 - 20x}$$

