6.1 Equations with Like Terms

PRACTICE SOLUTIONS

Solve the following equations. SHOW ALL STEPS!!!!

1. $2x + 3x = 10$

$5x = 10$

$\frac{5x}{5} = \frac{10}{5}$

$x = 2$

2. $7x - 3x = 8$

$4x = 8$

$\frac{4x}{4} = \frac{8}{4}$

$x = 2$

3. $3t + 2 + 5 = 16$

$3t + 7 = 16$

$-7 \quad -7$

$3t = 9$

$\frac{3t}{3} = \frac{9}{3}$

$t = 3$

4. $-8 = 2 + 4y + y$

$-8 = 5y + 2$

$-2 \quad -2$

$-10 = 5y$

$\frac{-10}{5} = \frac{5y}{5}$

$-2 = y$

5. $9 = 4m - 3 + 2m$

$9 = 6m - 3$

$+3 \quad +3$

$12 = 6m$

$\frac{12}{6} = \frac{6m}{6}$

$2 = m$

6. $10 = 3x + 8 - 4$

$10 = 3x + 4$

$-4 \quad -4$

$6 = 3x$

$\frac{6}{3} = \frac{3x}{3}$

$2 = x$

7. $p + 3p = -16$

$4p = -16$

$\frac{4p}{4} = \frac{-16}{4}$

$p = -4$

8. $15 = -3d - 2d$

$15 = -5d$

$\frac{15}{-5} = \frac{-5d}{-5}$

$-3 = d$

9. $8 - 2x + 8 - 2x = 20$

$-4x + 16 = 20$

$-16 \quad -16$

$-4x = 4$

$\frac{-4x}{-4} = \frac{4}{-4}$

$x = -1$

10. $2x - 4 - x = -8$

$1x - 4 = -8$

$+4 \quad +4$

$x = -4$

11. $-8 = -10 - 3f + 2$

$-8 = -3f - 8$

$+8 \quad +8$

$0 = -3f$

$\frac{0}{-3} = \frac{-3f}{-3}$

$0 = f$

12. $-400n = 1000 - 200$

$-400n = 800$

$\frac{-400n}{-400} = \frac{800}{-400}$

$n = -2$

MIXED REVIEW. Solve the following one-step and two-step equations.

13. $6 = 2 - 4y$

$-2 \quad -2$

$4 = -4y$

$\frac{4}{-4} = \frac{-4y}{-4}$

$-1 = y$

14. $-2 = \frac{t}{5}$

$5 \cdot -2 = \frac{t}{5} \cdot 5$

$-10 = t$

15. $\frac{x}{3} - 3 = 7$

$+3 \quad +3$

$\frac{x}{3} = 10$

$3 \cdot \frac{x}{3} = 10 \cdot 3$

$x = 30$

© 2021 The Algebros, LLC