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Chapter 3 Sections 3.1-3.2 Practice Test

Short Answer

Solve the equation.

1. $-5 = x + 3$

$-3 \quad -3$

$-8 = x$

2. $-4 = \frac{x}{-5}$

multiply by -5 to both sides

$20 = x$ $x = 20$

3. $x + 19 = -1$

$-19 \quad -19$

$x = -20$

4. $\frac{7}{8}x = 7$

multiply by $\frac{8}{7}$ to both sides

$\frac{8}{7} \cdot \frac{7}{8}x = 7 \cdot \frac{8}{7}$

$x = \frac{56}{7}$ $x = 8$

5. $-3 = \frac{x}{7} + 4$

$-4 \quad -4$

$-7 = \frac{x}{7}$ multiply by 7, both sides $-49 = x$

6. $\frac{3}{5}x - 6 = 3$

$+6 \quad +6$

$\frac{3}{5}x = 9$ multiply by $\frac{5}{3}$ to both sides

$\frac{5}{3} \cdot \frac{3}{5}x = \frac{9}{1} \cdot \frac{5}{3}$

$x = \frac{45}{3}$ $x = 15$

7. $10 = \frac{3 + z}{-5}$

multiply by -5, both sides

$-50 = 3 + z$

$-3 \quad -3$

$-53 = z$

8. $3 = \frac{12 + z}{-6}$

multiply by -6, both sides

$-18 = 12 + z$

$-12 \quad -12$

$-30 = z$

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9. $2(1.5y + 4) = -1$

$3y + 8 = -1$
$-8 \quad -8$

$\frac{3y}{3} = \frac{-9}{3}$

$y = -3$

10. $\frac{3x}{5} - 0.5 = 1.9$

$+0.5 \quad +0.5$

$\frac{3x}{5} = 2.4$

multiply by $\frac{5}{3}$ to both sides

$\frac{5}{3} \cdot \frac{3x}{5} = 2.4 \cdot \frac{5}{3}$

$x = 4$

11. $\frac{x}{6} - 7 = \frac{2 \cdot 2}{3 \cdot 2}$

$\frac{x}{6} - \frac{7}{1} = \frac{4}{6}$

$\frac{x}{6} - \frac{42}{6} = \frac{4}{6}$

$x - 42 = 4$
$+42 \quad +42$
$x = 46$

12. $x - \frac{3}{5} = \frac{4}{5}$

$\frac{x}{1} - \frac{3}{5} = \frac{4}{5}$

$\frac{5x}{5} - \frac{3}{5} = \frac{4}{5}$

$5x - 3 = 4$
$+3 \quad +3$
$5x = 7$
$x = \frac{7}{5}$

13. $\frac{1}{2} + \frac{7x}{10} = \frac{13}{20}$

$\frac{10}{20} + \frac{14x}{20} = \frac{13}{20}$

$10 + 14x = 13$
$-10 \quad -10$
$14x = 3$

$x = \frac{3}{14}$

14. Solve the equation. $46 + 3 + 6q = 85$

$49 + 6q = 85$
$-49 \quad -49$
$6q = 36$

$q = 6$

15. Solve the equation. $2.6 = -12.2 + (-5.3y) + 2.1y$

$2.6 = -12.2 - 3.2y$
$+12.2 \quad +12.2$

$\frac{14.8}{-3.2} = \frac{-3.2y}{-3.2}$

$-4.625 = y$

16. Solve the equation. $5.6x + 2.7 = 13.9$

$-2.7 \quad -2.7$
$5.6x = 11.2$

$\frac{5.6x}{2} = \frac{11.2}{2}$

$x = 2$

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17. Solve the equation. $6(y + 7) = 72$

$6y + 42 = 72$
$-42 \quad -42$
$\frac{6y}{6} = \frac{30}{6}$
$y = 5$

18. Solve the equation. $16 = -d + 12$

$-12 \quad -12$
$4 = -d$
$\frac{4}{-1} = \frac{-d}{-1}$
$d = -4$

19. Solve the equation. $y + 11 + 8y = 29$

$9y + 11 = 29$
$-11 \quad -11$
$9y = 18$
$y = 2$

20. Solve the equation. $52 + 2 + 6k = 126$

$54 + 6k = 126$
$-54 \quad -54$
$6k = 72$
$k = 12$

21. Solve the equation. $-6y + 1 + -6y = -11$

$-12y + 1 = -11$
$-1 \quad -1$
$-12y = -12$
$y = 1$

22. Solve the equation. $3.2x + 3.8 = 16.6$

$-3.8 \quad -3.8$
$3.2x = 12.8$
$\frac{3.2x}{3.2} = \frac{12.8}{3.2}$
$x = 4$

23. Solve the equation. $6(y + 4) = 48$

$6y + 24 = 48$
$-24 \quad -24$
$6y = 24$
$y = 4$

24. Solve the equation. $5(y + 4) = 65$

$5y + 20 = 65$
$-20 \quad -20$
$5y = 45$
$y = 9$