Math 105 - Solving Linear Equations **Name:** _____

Solve each equation. Show your work. No calculators.

1. $x + 5 = 7$
2. $4 - x = 3$
3. $2x = 12$
4. $-3x = 4$
5. $\frac{2}{3}u = \frac{1}{5}$
6. $\frac{y}{5} = \frac{3}{4}$
7. $2x + 5 = 11$
8. $4r - 3 = 13$
9. $5 - y = \frac{3}{10}$
10. $4 - 2s = 8s - 10$
11. $3 + 2y = 4 - 3y$
12. $\frac{t}{4} + 2 = \frac{t}{3}$
13. $\frac{3}{10}r + 7 = 4$
14. $\frac{-1}{2}x - 3 = \frac{3}{2}$
15. $\frac{x+4}{120} = \frac{1}{30}$
16. $3(x - 5) = 12$
17. $\frac{x-2}{5} = 10$
18. $\frac{x+5}{x} = 2$
19. $5 - \frac{u}{7} = 3$
20. $\frac{2}{q} - 3 = 4 - \frac{5}{q}$
21. $3z - 5 + z = 7z - 2 - 3z$
22. $\frac{4x - (-x) + 3x}{2} = -8$
23. $(5x + 4) + (2x + 1) = x + 5$
24. $\frac{x}{12} + \frac{x}{-3} = 10$

More ⟶

Solve each of the following equations for the indicated variable.

25. $E = mc^2$, solve for m

26. $16 = b^2 - 4ac$, solve for a

27. $A = \frac{1}{2}bh$, solve for h

28. $P = 2\ell + 2w$, solve for ℓ

29. $V = \frac{1}{3}\pi r^2 h$, solve for h.

30. $S = 2\pi r^2 + 2\pi rh$, solve for h.

Find the x-value where the two lines cross.

31. $y = x$ and $y = 2x + 1$

32. $y = -2x + 3$ and $y = -3$

33. $x + y = 1$ and $x = y$

Draw a graph, and find an equation for the line that meets the following criteria.

34. Slope is 2 and hits the x-axis at $x = -3$.

35. Passes through the points $(2, 1)$ and $(0, 3)$.