

Algebra Test 2

Name: _____

Note: You will receive partial credit for incorrect answers if you show your work.

One and Two Step Equations

Solve for x .

1. $x + 7 = 9$

2. $11 + x = 15$

3. $x + 7 = -2$

4. $2 + x = 2$

5. $x - 7 = 11$

6. $3 - x = 1$

7. $2x = 6$

8. $4x = 24$

9. $-2x = 8$

10. $3x = 12$

11. $8x = 32$

12. $-3x = -15$

13. $\frac{x}{4} = 1$

14. $\frac{x}{2} = 3$

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

16. $2x + 4 = 12$

17. $6x - 4 = 20$

18. $4 + 3x = 16$

19. $2x - 5 = 5$

20. $3x - 2 = 7$

21. $3(x - 2) = 6$

22. $3(x + 3) = 12$

23. $\frac{x + 1}{3} = -2$

24. $\frac{x}{3} + 2 = 8$

Story Problems

25. Emily is buying bottles of soda for \$3 each. She has \$15. If x is the number of bottles she can buy, which of these is a valid equation to solve this problem?
- (a) $15x = 3$ (b) $3x = 15$ (c) $x + 15 = 3$ (d) $x + 3 = 15$
26. Donald got some money for his birthday, but spent all but a third of it on some new shoes. He then shoveled some snow for \$15. He now has \$65. If x represents his birthday money, which of these is *not* a valid equation for this problem?
- (a) $\frac{x}{3} = 65 - 15$ (b) $\frac{x}{3} + 15 = 65$ (c) $x = 3(65 - 15)$ (d) $\frac{x}{3} - 15 = 65$
27. Diamond is making bread. The recipe calls for 4 cups of flour. If she's already put in 2 cups, how many more does she need?
28. Last Friday LaDieja had \$43. Over the weekend she received some money for cleaning the attic. She now has \$65. How much money did she receive?
29. How many boxes of envelopes can Larena buy with \$25 if one box costs \$5?
30. Last week, Edward ran 5 more miles than Cameron. Cameron ran 14 miles. How many miles did Edward run?
31. At a restaurant, Tiffany and four of her friends decided to divide the bill evenly. If each person paid \$8 then what was the total bill?
32. Shirlarian bought a book for \$11 and six magazines, for a total of \$29. How much was each bookmark?
33. Santana's brother gave him \$50 to buy notebooks. He bought six notebooks, and had \$8 left over. How much was each notebook?
34. 180 HPRA students went on a field trip. They filled three buses, and 6 students went in Mr. Jackson's car. How many were on each bus?