



Math Worksheet for 7th Grade

Two-step equations intro

Name: _____

Due Date: _____

Teacher: _____

Parent Sign: _____

2. If you add 6 to one side of an equation, what must you do to the other side?
3. If $3x + 5 = 20$ and you subtract 5 from both sides, what equation results?
4. If $x/4 = 7$ and you multiply both sides by 4, what is x ?
5. True or false: Multiplying both sides of $-2x = 8$ by -1 gives $2x = -8$.
6. If you divide both sides of $6x = 30$ by 6, what is x ?
7. Solve: $2x + 3 = 11$.
8. Solve: $5x - 7 = 18$.
9. Solve: $(\frac{1}{2})x + 4 = 10$.
10. Solve: $3x - 9 = 0$.
11. Solve: $-4x + 8 = 0$.
12. Solve: $x/3 - 2 = 5$.
13. Solve: $0.5x + 2 = 8$.
14. Solve: $4(x - 2) = 12$.
15. Solve: $7 + 2x = 19$.
16. Solve: $-3x + 4 = 10$.
17. Solve: $9 = 3x + 6$.
18. Solve: $(\frac{3}{4})x - 5 = 4$.
19. Solve: $6 = (\frac{1}{3})x + 2$.
20. Solve: $-2 + 5x = 18$.
21. Determine the first step to solve $5x + 9 = 34$.
22. For $2(x + 3) = 16$, what is the second step after dividing both sides by 2?
23. Which operation should you undo first in $4x + 7 = 31$ – subtract 7 or divide by 4?
24. Is $x = 3$ a solution to $4x + 5 = 17$? (Yes or No)
25. Verify whether $x = 10$ is a solution to $(\frac{1}{2})x + 5 = 10$. (Yes or No)
26. If $3x + 2 = 2x + 11$, what operation would you do first to isolate x ?
27. Solve: $2x + 4 = 3x - 6$.
28. Solve: $-5 + 6x = 31$.
29. Solve: $(x/5) + 7 = 12$.
30. Solve: $0.25x - 1 = 3$.
31. Solve: $5x + 3 = 23$.
32. Solve: $-x/2 + 3 = 11$.
33. Solve: $3(x - 1) + 2 = 14$.



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34. Solve: $4x + 1 = -11$.

35. Word problem: Sarah had some stickers. She buys 3 packs of 4 stickers. Now she has 28 stickers. How many did she have at the start? (Write and solve an equation.)

36. Word problem: A taxi charges a \$2 flat fee plus \$1.50 per mile. If the total fare was \$11, how many miles were driven?

37. Word problem: A number L is increased by 3 and the result is multiplied by 2 to give 22. Find L. (Write and solve.)

38. Word problem: Emma is 4 years older than twice her brother's age. The sum of their ages is 28. How old is the brother?

39. Word problem: A number is divided by 4 and then 5 is added to the result to give 13. What is the number?

40. Word problem: A phone plan costs \$15 per month plus \$0.10 per text. If the bill is \$18, how many texts were sent?

41. Solve: $3(x + 9) = 48$.

42. Solve: $2x + 9 = 31$.

43. Word problem: A movie ticket costs \$4. Jane also buys some snacks at \$2 each and spends \$12 total. How many snacks did she buy?

44. Word problem: A plant's height is doubled and then 5 inches are added; the final height is 21 in. What was its original height? (Write and solve.)

45. Worked example (solve showing steps): Solve $3x + 4 = 19$.

46. Worked example (solve showing steps): Solve $(\frac{1}{2})x - 6 = 9$.

47. Worked example (solve showing steps): Solve $4(x - 2) = 20$.

48. Apply the same operation to both sides: Starting with $3x + 5 = 20$, first subtract 5 from both sides. Write the equation you get after subtracting 5.

49. Word problem: A pizza costs \$8 plus \$2.50 per topping. If the total cost was \$18, how many toppings were ordered?

50. Word problem: Mia doubled her money after saving \$15; she now has \$130. How much money did she start with? (Write and solve.)