



Name: \_\_\_\_\_

Due Date: \_\_\_\_\_

Teacher: \_\_\_\_\_

Parent Sign: \_\_\_\_\_

## Math Worksheet for 7th Grade

### Two-step equation word problems

1. Mia does  $x$  yoga poses in a session. She does 3 times that number and then adds 5 more poses, for a total of 26 poses. Write and solve the equation for  $x$ .
2. Ben holds each pose for  $x$  seconds. Four poses take a total of  $4x$  minus a 6-second break = 30 seconds of hold time. Solve  $4x - 6 = 30$ .
3. A yoga challenge requires twice the number of poses plus 8 extra to reach 36 poses. Solve  $2x + 8 = 36$ .
4. A monthly yoga membership costs  $x$  dollars. Registration fee is \$15. Two months plus the registration cost \$75. Solve  $2x + 15 = 75$ .
5. A class divides students into groups of  $2x$ . If  $x/2 + 3 = 10$  ( $x$  divided by 2, then add 3) find  $x$ .
6. The instructor adds 5 more poses than three times the number Mary did, giving a total of 50 poses. Solve  $3x + 5 = 50$ .
7. The instructor triples Mary's poses after she increases them by 4 to get 30 poses:  $3(x + 4) = 30$ . Find  $x$ .
8. After six rounds of a pose minus 9 warmup seconds, the total is 33:  $6x - 9 = 33$ . Find  $x$ .
9. A class is split into groups of  $(x/3)$  students; after adding 2 more students per group, there are 7 per group:  $x/3 + 2 = 7$ . Find  $x$ .
10. She starts with  $x$  poses, doubles them, then subtracts 4 to get 18. Solve  $2x - 4 = 18$ .

Equation word problem: Super Yoga (2 of 2)

11. Four times  $x$  plus 6 equals 50. Solve  $4x + 6 = 50$ .
12. Twice  $(x - 3)$  equals 24. Solve  $2(x - 3) = 24$ .
13. One-fourth of  $x$  plus 5 equals 11. Solve  $x/4 + 5 = 11$ .
14. Five times  $x$  minus 10 equals 65. Solve  $5x - 10 = 65$ .
15. Three times  $(x + 2)$  equals 21. Solve  $3(x + 2) = 21$ .
16. Seven  $x$  plus 3 equals 45. Solve  $7x + 3 = 45$ .
17.  $x$  divided by 5 minus 2 equals 3. Solve  $x/5 - 2 = 3$ .
18. Two  $x$  plus 9 equals 43. Solve  $2x + 9 = 43$ .
19. Six times  $(x - 1)$  equals 30. Solve  $6(x - 1) = 30$ .
20. Eight  $x$  minus 7 equals 57. Solve  $8x - 7 = 57$ .

Two-step equation word problem: Computers

21. A computer costs  $x$  dollars. Buying 4 computers plus a \$120 setup fee costs \$820. Solve  $4x + 120 = 820$ .
22. A school buys 6 computers and receives a \$200 discount, paying \$2,800 in total. Solve  $6x - 200 = 2800$ .
23. Each computer costs  $x$  dollars. Buying 2 computers plus \$30 tax totals \$730. Solve  $2x + 30 = 730$ .
24. A laptop's list price is  $x$  dollars. A store sells 3 laptops at \$50 off each for a total of \$1,050:  $3(x - 50) = 1050$ . Find  $x$ .
25. Sally saves  $x$  dollars per month. After 8 months she still needs \$100 to reach a \$980 laptop:  $8x + 100 = 980$ . Find  $x$ .
26. A bundle has 2 keyboards at  $x$  dollars each and 3 mice at \$10 each; total cost is \$120. Solve  $2x + 30 = 120$ .

## Math Worksheet for 7th Grade

### Two-step equation word problems

27. A computer lab buys  $x$  computers at \$240 each and pays \$300 for desks, totaling \$1,740. Solve  $240x + 300 = 1740$ .
28. Each computer uses  $x$  watts. Five computers plus 40 watts for other devices use 340 watts:  $5x + 40 = 340$ . Find  $x$ .
29. A device's price minus a \$50 rebate, then divided equally among 3 buyers, gives \$150 each:  $(x - 50)/3 = 150$ . Find  $x$ .
30. A school budget of \$2,000 pays \$50 shipping and 3 computers cost the rest:  $3x + 50 = 2000$ . Find  $x$ .

Two-step equation word problem: Garden

31. A garden has 4 rows with  $x$  plants per row and 6 extra plants, totaling 86 plants:  $4x + 6 = 86$ . Find  $x$ .
32. Sheila plants 5 seedlings per row, then removes 10 that didn't grow, leaving 140 plants:  $5x - 10 = 140$ . Find  $x$  (rows).
33. The garden's width is 3 m and its length is  $x + 2$  m. Area is 66 m<sup>2</sup>:  $3(x + 2) = 66$ . Find  $x$ .
34. She waters 8 plants using  $x$  liters each and uses an extra 10 liters for other plants, totaling 90 L:  $8x + 10 = 90$ . Find  $x$ .
35. One bag of soil covers  $x$  sq ft. Six bags and 4 extra sq ft cover 100 sq ft:  $6x + 4 = 100$ . Find  $x$ .
36. A seed packet contains  $x$  seeds; planting a third of them plus 5 leftover makes 20 total planted:  $x/3 + 5 = 20$ . Find  $x$ .
37. Spacing requirement gives  $2(x - 1) = 18$ . Solve for  $x$ .
38. Each scoop of compost weighs  $x$  kg. Seven scoops plus 2 kg of mulch weigh 51 kg:  $7x + 2 = 51$ . Find  $x$ .
39. Fence cost is  $x$  dollars per meter. For 30 m plus a \$20 gate the total is \$380:  $30x + 20 = 380$ . Find  $x$ .
40. Nine seed packets each with  $x$  seeds, after using 27 seeds, leave 81 seeds:  $9x - 27 = 81$ . Find  $x$ .

Two-step equation word problem: Oranges

41. A basket has  $x$  oranges. After giving away 7, she packs the rest into 3 equal bags of 14 each:  $(x - 7)/3 = 14$ . Find  $x$ .
42. A tree yields  $x$  oranges. Eight trees produce  $8x$  oranges, but 16 are spoiled, leaving 584 good oranges:  $8x - 16 = 584$ . Find  $x$ .
43. Boxes of 6 oranges cost  $x$  dollars per box. Four boxes plus \$2 shipping cost \$50:  $4x + 2 = 50$ . Find  $x$ .
44. Oranges sell at  $x$  dollars per kg. Three kilograms minus a \$3 discount costs \$33:  $3x - 3 = 33$ . Find  $x$ .
45. Oranges cost \$2 each and a \$3 bag fee is added. If the total was \$23, solve  $2x + 3 = 23$  to find how many oranges were bought.
46. A crate has  $x$  oranges. After removing 6 bad ones, the rest are boxed into 4-orange boxes giving 9 full boxes:  $(x - 6)/4 = 9$ . Find  $x$ .
47. A seller packs 5 bags with  $x$  oranges each and has 10 extra loose oranges, totaling 110 oranges:  $5x + 10 = 110$ . Find  $x$ .
48. Half of the oranges plus 6 equals 26:  $(\frac{1}{2})x + 6 = 26$ . Find  $x$ .
49. Tom sold 3 dollars for each orange after selling 8 oranges and made \$60 from the rest:  $3(x - 8) = 60$ . Find  $x$ .
50. Each orange weighs  $x$  grams. Six oranges plus a 50 g container weigh 560 g total:  $6x + 50 = 560$ . Find  $x$ .