

2-3 Practice**Solving Equations by Using Multiplication and Division**

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Solve each equation. Then check your solution.

1. $8j = 96$

2. $-13z = -39$

3. $-180 = 15m$

4. $243 = 27c$

5. $\frac{y}{9} = -8$

6. $-\frac{j}{12} = -8$

7. $\frac{a}{15} = \frac{4}{5}$

8. $\frac{g}{27} = \frac{2}{9}$

9. $\frac{q}{24} = \frac{1}{6}$

10. $-1 = -\frac{4}{7}t$

11. $-\frac{3}{8}w = -9$

12. $-\frac{3}{15}s = 4$

13. $-3x = \frac{3}{2}$

14. $\frac{8}{5}a = \frac{4}{3}$

15. $\frac{5}{3}h = \frac{11}{6}$

16. $5n = \frac{11}{4}$

17. $2.5k = 20$

18. $-3.4e = -3.74$

19. $-1.7b = 2.21$

20. $0.26p = 0.104$

21. $4.2q = -3.36$

Write an equation for each problem. Then solve the equation.

22. Negative nine times a number equals -117 . Find the number.

23. Negative one eighth of a number is $-\frac{3}{4}$. What is the number?

24. Five sixths of a number is $-\frac{5}{9}$. Find the number.

25. 2.7 times a number equals 8.37. What is the number?

26. One and one fourth times a number is one and one third. What is the number?

27. **PUBLISHING** Two units of measure used in publishing are the *pica* and the *point*. A pica is one sixth of an inch. There are 12 points in a pica, so Points = 12 · Picas. How many picas are equivalent to 108 points?

ROLLER COASTERS For Exercises 28 and 29, use the following information.

Kingda Ka in New Jersey is the tallest and fastest roller coaster in the world. Riders travel at an average speed of 61 feet per second for 3118 feet. They reach a maximum speed of 187 feet per second.

28. If x represents the total time that the roller coaster is in motion for each ride, write an expression to represent the situation. (*Hint*: Use the distance formula $d = rt$.)

29. How long is the roller coaster in motion?