



SKILL 12: Finding a Percent of a Number

To find a percent of a number, you can use a proportion, or you can write the percent as a decimal and multiply.

Example

Find 22% of 83.

Proportion Method

Write a proportion. Then find the cross products and solve for x .

$$\begin{array}{l} \text{part} \quad \rightarrow \quad \frac{x}{83} = \frac{22}{100} \quad \leftarrow \text{Write the} \\ \text{whole} \quad \rightarrow \quad \frac{22}{100} \quad \text{percent as} \\ \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \text{a fraction} \\ \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \text{over 100.} \end{array}$$

$$100x = 1826$$

$$x = 1826 \div 100$$

$$x = 18.26$$

22% of 83 is 18.26.

Equation Method

Change the percent to a decimal and multiply.

$$\begin{aligned} 22\% \text{ of } 83 &= 0.22 \times 83 \\ &= 18.26 \end{aligned}$$

22% of 83 is 18.26.

Guided Practice

Find 6% of 30 using the indicated method.

1. Write a proportion.

$$\frac{x}{30} = \frac{6}{100}$$

$$100x = \underline{\hspace{2cm}}$$

$$x = \underline{\hspace{2cm}}$$

$$6\% \text{ of } 30 = \underline{\hspace{2cm}}$$

2. Write an equation.

$$6\% \text{ of } 30 = \underline{\hspace{1cm}} \times 30$$

$$= \underline{\hspace{1cm}}$$

$$6\% \text{ of } 30 = \underline{\hspace{2cm}}$$

Find the percent of each number.

3. 25% of 84

$$0.25 \times 84 = \underline{\hspace{2cm}}$$

$$25\% \text{ of } 84 = \underline{\hspace{2cm}}$$

4. 10% of 7

$$0.1 \times 7 = \underline{\hspace{2cm}}$$

$$10\% \text{ of } 7 = \underline{\hspace{2cm}}$$

5. 91% of 37

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$91\% \text{ of } 37 = \underline{\hspace{2cm}}$$

6. 60% of 45

$$0.6 \times 45 = \underline{\hspace{2cm}}$$

$$60\% \text{ of } 45 = \underline{\hspace{2cm}}$$

7. 4.2% of 50

$$0.042 \times 50 = \underline{\hspace{2cm}}$$

$$4.2\% \text{ of } 50 = \underline{\hspace{2cm}}$$

8. 75% of 160

$$\underline{\hspace{1cm}} \times 160 = \underline{\hspace{1cm}}$$

$$75\% \text{ of } 160 = \underline{\hspace{2cm}}$$

SKILL 12: Practice

Find the percent of each number.

1. 50% of 66 = _____
2. 25% of 72 = _____
3. 40% of 180 = _____
4. $33\frac{1}{3}\%$ of 123 = _____
5. 54% of 120 = _____
6. 0% of 14 = _____
7. 22% of 96 = _____
8. 4% of 180 = _____
9. 100% of 180 = _____
10. 19.2% of 50 = _____
11. 31.4% of 20 = _____
12. 8.8% of 700 = _____
13. 3.8% of 145 = _____
14. 98.5% of 150 = _____
15. 45% of 75 = _____
16. 1.2% of 200 = _____
17. 75% of 360 = _____
18. 20% of 65 = _____

Solve each problem. Try to find a pattern.

19. 10% of 37 = _____
37% of 10 = _____
20. 78% of 50 = _____
50% of 78 = _____
21. 28% of 25 = _____
25% of 28 = _____
22. 47% of 40 = _____
40% of 47 = _____

Solve.

23. Of the 50 students in Class A, 48% are boys.
How many of the students are boys? _____
24. The basketball team won 68% of the 25 games
played. How many games did the team win? _____

TEST PREP

25. Find 25% of 120.

- A 300 C 480
B 3 D 30

Skill 12

26. Which is the cross product

of $\frac{4}{12} = \frac{6}{18}$?

- F 24 H 216
G 42 J 72

Skill 5