

Percent of a Number

(pages 346–348)

Suppose you read in the school newspaper that 62% of students who were surveyed buy their lunches at school. Of the 200 students who were surveyed, how many buy their lunches? You can either use a proportion or multiplication to solve this problem.

EXAMPLES

A Find 62% of 200.

Method 1: Use a proportion. Let s represent the number of students who buy their lunches.

$$\frac{s}{200} = \frac{62}{100}$$

The ratio of s students to the 200 who were surveyed equals 62%,

$$\text{or } \frac{62}{100}.$$

$s \times 100 = 200 \times 62$ Find the cross products.

$$\frac{100s}{100} = \frac{12,400}{100}$$

Divide each side by 100.

$$s = 124$$

So, 62% of 200 is 124.

B Find 62% of 200.

Method 2: Use multiplication.

First express the percent as a decimal and then multiply.

$$\begin{aligned} 62\% \text{ of } 200 &= 0.62 \times 200 && \text{Remember,} \\ &= 124 && 62\% = 0.62. \end{aligned}$$

So, 62% of 200 is 124.

Try These Together

Find each number. Round to the nearest tenth if necessary.

- Find 50% of 66.
- What number is 20% of 200?

PRACTICE

Find each number. Round to the nearest tenth if necessary.

- Find 80% of 40.
- What number is 12% of 68?
- Find 25% of 160.
- 15% of 74 is what number?
- What number is 18% of 96?
- What number is 75% of 24?
- 85% of 225 is what number?
- Find 33% of 90.
- What number is 37% of 128?
- Find 10% of 100.
- Landscaping** Mr. and Mrs. Morrissey want to replace 60% of the grass in their yard with bushes and plants. If their yard has 6,000 square feet of grass, how many square feet will be replaced with bushes and plants?



- 14. Standardized Test Practice** If 25% of the pieces of a 500-piece puzzle are edge pieces, how many are edge pieces?

A 75

B 150

C 125

D 225

Answers: 1. 33 2. 40 3. 32 4. 18 5. 8.2 6. 191.3 7. 40 8. 29.7 9. 11.1 10. 47.4 11. 17.3 12. 10 13. 3,600 14. C