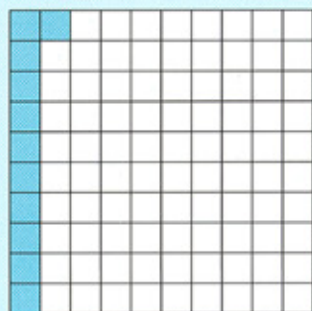**Example 1** **What percent is shaded?** Carl has a game with 100 cubes. 11 of them are blue. What percent of the cubes are blue?

Percent means "part of 100." The symbol for percent is %.

Begin by making a model.

Step 1 **Write a fraction for the shaded part.**

$$\frac{11 \text{ shaded squares}}{100 \text{ squares in all}} = \frac{11}{100}$$

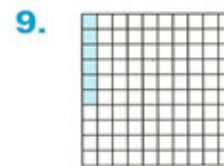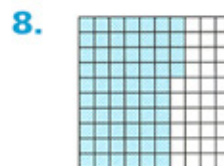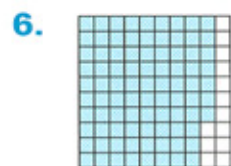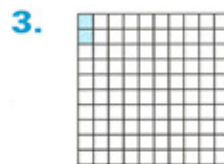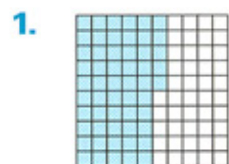**Step 2** **Write the fraction as a percent.**

$$\frac{11}{100} = 11 \text{ hundredths} = 11 \text{ percent} = 11\%$$

11 parts of one hundred

11% of the grid is shaded.
11% of the cubes are blue.

Answer: 11%

Set A **What percent is shaded?**
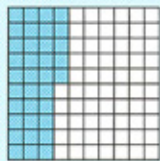
1.

2.

3.

4.

5. **Solve.** Claudia made 100 brownies for a bake sale. After the first hour, she had sold 17 brownies. What percent of the brownies was remaining?

6.

7.

8.

9.

10. **Solve.** If there are 6 books stacked on top of each other and each book is $1\frac{5}{8}$ inches thick, how high is the stack?

Skill: Write the percent represented by a diagram (less than 100%).
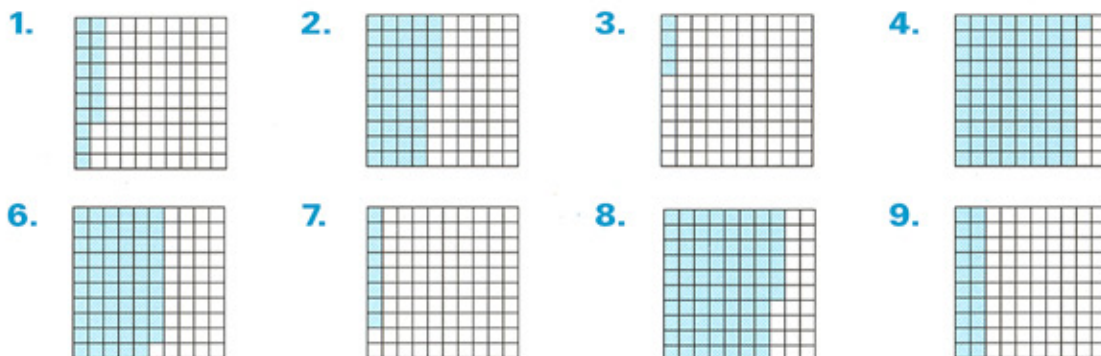
Example 2 · What percent is shaded?

Count to find how many squares out of 100 are shaded.

$$\frac{35 \text{ shaded squares}}{100 \text{ squares in all}} = \frac{35}{100} = 35 \text{ hundredths} = 35 \text{ percent} = 35\%$$
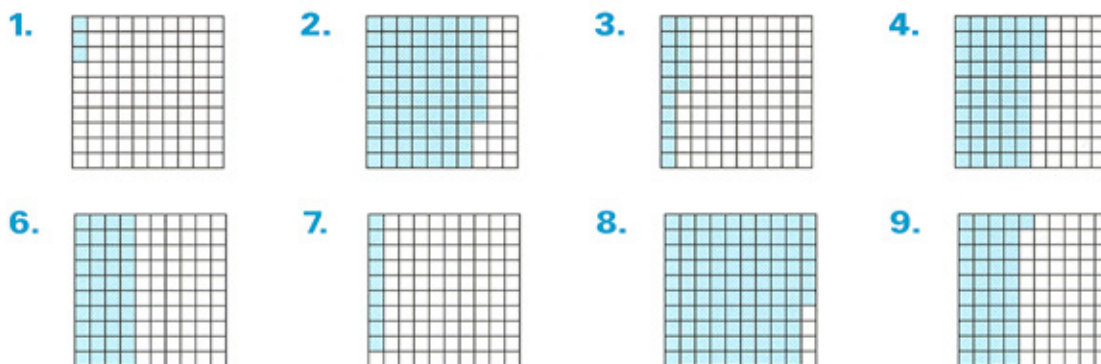
Answer: 35%

Set B · What percent is shaded?

1.
2.
3.
4.

5. **Solve.** Helen's bowling average is 125. In three games, Helen's scores were 119, 123, and 124. What will Helen's score need to be in her fourth game for her to maintain her average?

6.
7.
8.
9.

10. **Solve.** Caitlin colored in 34 squares on a grid of 100 squares. What percent did she color?

Set C · What percent is shaded?

1.
2.
3.
4.

5. **Solve.** The baseball diamond where Celia plays is a square, and each side is 90 feet long. Find the perimeter and area of the baseball diamond.

6.
7.
8.
9.

10. **Solve.** Lorraine bought 6 pints of cranberry juice for her party. If she plans to give each person one cup of juice, how many people can she serve?

290A
Answers

Set A	►
1.	55%
2.	49%
3.	2%
4.	23%
5.	83%
6.	87%
7.	36%
8.	64%
9.	6%
10.	$9\frac{3}{4}$ inches

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Answers

Set B ▶

1.	17%
2.	45%
3.	4%
4.	81%
5.	134
6.	59%
7.	8%
8.	76%
9.	20%
10.	34%

Set C ▶

1.	3%
2.	77%
3.	15%
4.	53%
5.	perimeter = 360 ft, area = 8,100 ft^2
6.	40%
7.	9%
8.	96%
9.	41%
10.	12 people