

# REVIEW: Percents and Decimals

Name \_\_\_\_\_

## Key Concept and Vocabulary

$18\% = 0.18$

**Percent to Decimal:**  
Move decimal point to the left 2 places.

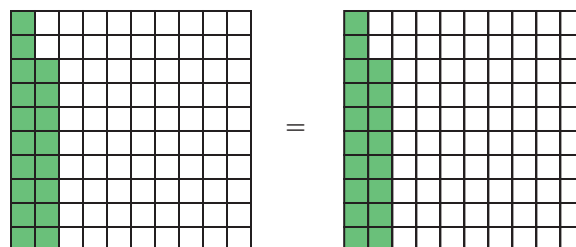


$0.73 = 73\%$

**Decimal to Percent:**  
Move decimal point to the right 2 places.

## Visual Model

$18\% = 0.18$

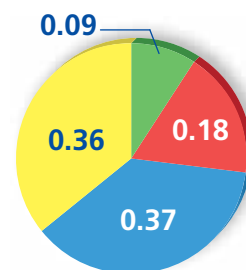


## Skill Examples

- $18\% = 0.18$
- $145\% = 1.45$
- $0.005 = 0.5\%$  (one-half of one percent)
- $0.125 = 12.5\%$

## Application Example

- What percent of the circle graph is represented by the yellow region?



$0.36 = 36\%$



• The yellow region is 36%.

## PRACTICE MAKES PURR-FECT™

Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

Write the percent as a decimal.

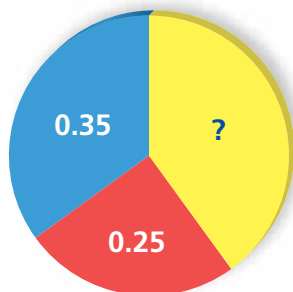
- |                    |                   |                     |                     |
|--------------------|-------------------|---------------------|---------------------|
| 6. $20\% =$ _____  | 7. $45\% =$ _____ | 8. $7\% =$ _____    | 9. $32.5\% =$ _____ |
| 10. $15\% =$ _____ | 11. $1\% =$ _____ | 12. $150\% =$ _____ | 13. $0.2\% =$ _____ |

Write the decimal as a percent.

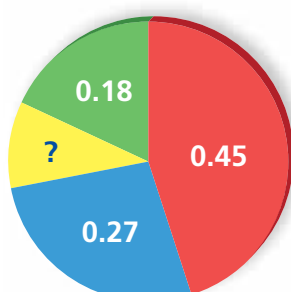
- |                    |                   |                     |                   |
|--------------------|-------------------|---------------------|-------------------|
| 14. $0.13 =$ _____ | 15. $1.4 =$ _____ | 16. $0.001 =$ _____ | 17. $2.5 =$ _____ |
|--------------------|-------------------|---------------------|-------------------|

What percent of the circle graph is represented by the yellow region?

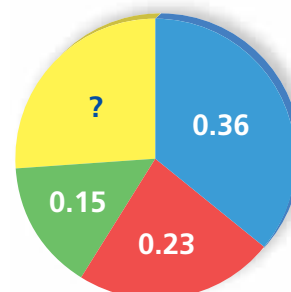
18.



19.



20.



- BUDGET** You have set aside two twenty-fifths of your monthly budget for clothing. What percent is this? \_\_\_\_\_
- SUMMER SCHOOL** Eighty-seven percent of the students in your class do not plan to attend summer school. What percent of your class plans to attend summer school? \_\_\_\_\_

# REVIEW: Finding the Percent of a Number

Name \_\_\_\_\_

## Key Concept and Vocabulary

40% of 60 is 24.

$$0.4 \times 60 = 24$$

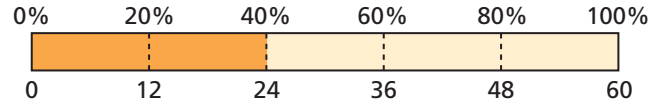
$$\frac{2}{5} \times 60 = 24$$

Write percent as decimal or fraction and multiply.

Finding a part.



## Visual Model



## Skill Examples

- 30% of 50:  $0.3 \times 50 = 15$
- 45% of 80:  $0.45 \times 80 = 36$
- 110% of 40:  $1.1 \times 40 = 44$
- 25% of 240:  $0.25 \times 240 = 60$

## Application Example

- 28% of the 200 people who answered a survey own a dog. How many of the 200 people in the survey own a dog?

$$0.28 \times 200 = 56$$

- 56 of the 200 people own a dog.



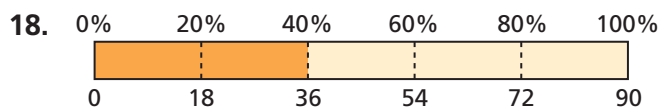
## PRACTICE MAKES PURR-FECT™

Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

Find the percent of the number.

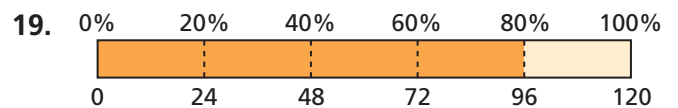
- 25% of 40 = \_\_\_\_\_
- 20% of 35 = \_\_\_\_\_
- 65% of 110 = \_\_\_\_\_
- 125% of 20 = \_\_\_\_\_
- $33\frac{1}{3}\%$  of 60 = \_\_\_\_\_
- 95% of 400 = \_\_\_\_\_
- 200% of 31 = \_\_\_\_\_
- 18% of 90 = \_\_\_\_\_
- 1% of 800 = \_\_\_\_\_
- 60% of 60 = \_\_\_\_\_
- 100% of 59 = \_\_\_\_\_
- 1000% of 59 = \_\_\_\_\_

Write the question represented by the model. Then answer the question.



Question: \_\_\_\_\_

Answer: \_\_\_\_\_



Question: \_\_\_\_\_

Answer: \_\_\_\_\_

- ENDANGERED SPECIES** Sixty percent of a species of butterfly died due to loss of habitat. Originally, there were 10,000 butterflies. How many are left? \_\_\_\_\_

- SALES TAX** You buy 4 breakfast sandwiches at \$2.59 each, 4 hashbrowns at \$1.10 each, and 4 bottles of orange juice at \$1.25 each. The sales tax is 6%. Find the total cost of the 4 meals, including sales tax. \_\_\_\_\_

## REVIEW: Percents: Finding the Whole

Name \_\_\_\_\_

### Key Concept and Vocabulary

60% of 45 is 27.

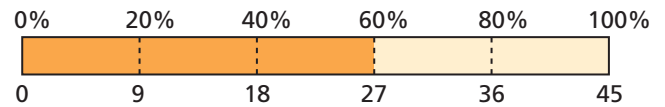
$$\frac{3}{5} \times 45 = 27$$

$$27 \div \frac{3}{5} = 45$$

Write the percent as a fraction. Then divide the part by the fraction.



### Visual Model



27 is 60% of 45.

### Skill Examples

1. 30% of what number is 15?

$$\begin{aligned} 15 \div 30\% &= 15 \div \frac{3}{10} \\ &= 15 \times \frac{10}{3} = 50 \end{aligned}$$

2. 110% of what number is 88?

$$\begin{aligned} 88 \div 110\% &= 88 \div \frac{11}{10} \\ &= 88 \times \frac{10}{11} = 80 \end{aligned}$$

### Application Example

3. A basketball player made 9 shots, which were 45% of her attempted shots. How many shots did the basketball player attempt?

$$\begin{aligned} 9 \div 45\% &= 9 \div \frac{9}{20} \\ &= 9 \times \frac{20}{9} \\ &= 20 \end{aligned}$$

- ❖ The basketball player attempted 20 shots.

## PRACTICE MAKES PURR-FECT™



Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

### Find the whole.

4. 25% of what number is 29? \_\_\_\_\_
5. 85% of what number is 68? \_\_\_\_\_
6. 16% of what number is 36? \_\_\_\_\_
7. 55% of what number is 77? \_\_\_\_\_
8. 4% of what number is 40? \_\_\_\_\_
9. 155% of what number is 403? \_\_\_\_\_
10. **PLAY** Of the students who auditioned for a play, 20% got a part. There are 12 students in the play. How many students auditioned for a part in the play? \_\_\_\_\_
11. **HOMEWORK** You have completed 15 questions of your English homework, which is 60%. How many English questions were assigned for homework? \_\_\_\_\_