Name _____

Relate Decimals and Percents

Essential Question How can you express decimals as percents and percents as decimals?

🔑 UNLOCK the Problem REAL WORLD

Decimals and percents are two ways of expressing the same number. You can write a percent as a decimal. You can also write a decimal as a percent.
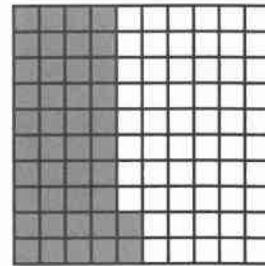
- In percent, the "whole" is 100. What is the "whole" in decimal form?

  _____

🔑 Example 1 Model 0.42. Write 0.42 as a percent.

STEP 1 Write the decimal as a ratio.

0.42 = 42 hundredths = 42 out of 100.

STEP 2 Make a model that shows 42 out of 100.
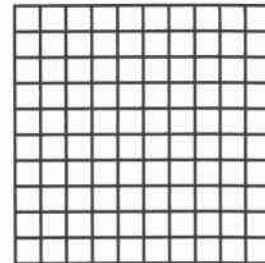
STEP 3 Use the model to write a percent.

42 shaded squares = __42__ percent, or __42__%

🔑 Example 2 Model 19 percent. Write 19% as a decimal.

STEP 1 Write the percent as a fraction.

$19\% = \frac{19}{100}$

STEP 2 Make a model that shows 19 out of 100.

STEP 3 Use the model to write a decimal.

19 shaded squares out of 100 squares = _____
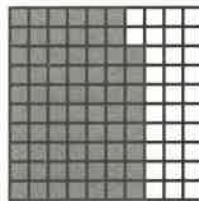
Math Talk Suppose a store is having a 50% off sale. What does this mean?

Share and Show

Use the model. Complete each statement.

1a. 0.68 = _____ out of 100

1b. How many squares are shaded?

_____

1c. What percent is shaded?

_____

Write the percents as decimals.

2. 47 percent

_____

3. 11 percent

_____

On Your Own

Write the decimals as percents.

4. 0.20

_____

5. 0.39

_____

6. 0.44

_____

7. 0.93

_____

8. 0.07

_____

9. 0.7

_____

10. 0.06

_____

11. 0.6

_____

Write the percents as decimals.

12. 12 percent

_____

13. 31%

_____

14. 99 percent

_____

15. 13 percent

_____

16. 4 percent

_____

17. 14 percent

_____

18. 90 percent

_____

19. 9%

_____

Problem Solving REAL WORLD

20. In basketball, Linda made 0.56 of her shots. What percent of her shots did Linda miss?

_____