

Lesson 6.1:

Percents and Decimals

Essential Question

How does the decimal point move when you rewrite a percent as a decimal and when you rewrite a decimal as a percent?

6.1 Notes

Get out your spiral notebooks!

 **Key Idea****Writing Percents as Decimals**

Words Remove the percent symbol. Then divide by 100, or just move the decimal point two places to the left.

Numbers $23\% = \underbrace{23.}_{\text{u}}\% = 0.23$

ABC **D** EFGHIJKLMNOP **P** QRSTUVWXYZ


Example 1:

a. Write 52% as a decimal.



0.52

b. Write 7% as a decimal.



0.07

Write the percent as a decimal.

1. 24%

0.24

2. 3%

0.03

3. 107%

1.07

4. 92.7%

0.927

Key Idea

Writing Decimals as Percents

Words Multiply by 100, or just move the decimal point two places to the right. Then add a percent symbol.

Numbers $0.36 = 0.36 = 36\%$

ABC **D** EFGHIJKLMNO **P** QRSTUVWXYZ


Example 2:

a. Write 0.47 as a percent.

47%

b. Write 0.663 as a percent.

66.3%

c. Write 1.8 as a percent.

180%

d. Write 0.009 as a percent.

0.9%

Write the decimal as a percent.

5. 0.94

94%

6. 1.2

120%

7. 0.316

31.6%

8. 0.005

0.5%

Example 3:

On a math test, you get 92 out of a possible 100 points. Which of the following is not another way of expressing 92 out of 100?

A $\frac{23}{25}$

B 92%

C $\frac{17}{20}$

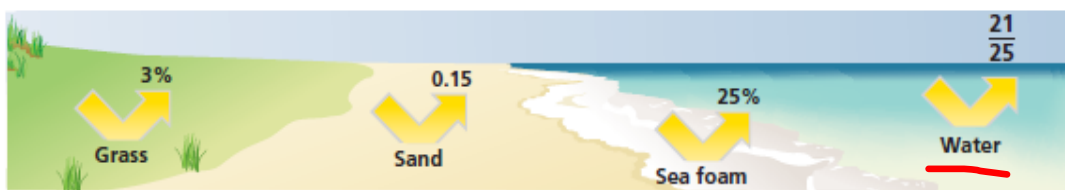
D 0.92

$$\frac{23 \times 4}{25 \times 4} = \frac{92}{100}$$

$$\frac{17 \times 5}{20 \times 5} = \frac{85}{100}$$

Example 4:

The figure shows the portions of ultraviolet (UV) rays reflected by four different surfaces. How many times more UV rays are reflected by water than by sea foam?



$$\frac{21}{25} = \frac{84}{100} = 84\%$$

Convert water to a percent. To find how many times 25% goes into 84%, you divide.

$$84 \div 25 = \boxed{3.36 \text{ times}}$$