Topic: Fractions to decimals to percents

Question: Find a mixed fraction that represents the given value.

3% of 80

Answer choices:

A $\quad 2\dfrac{1}{2}$

B $\quad 2\dfrac{2}{5}$

C $\quad 2\dfrac{3}{5}$

D $\quad 2\dfrac{1}{4}$

Solution: B

To find 3% of 80, we set it up as

$$\frac{3}{100} \cdot 80$$

$$\frac{3}{5} \cdot 4$$

$$\frac{12}{5}$$

5 goes into 12 two times, with a remainder of 2, so we can change the improper fraction to a mixed fraction and get

$$2\frac{2}{5}$$

Topic: Fractions to decimals to percents

Question: Convert the fraction to a percent.

$$\frac{40}{80}$$

Answer choices:

A   75 %

B   80 %

C   20 %

D   50 %

Solution: D

First, since the fraction isn't already in lowest terms, we'll reduce it to lowest terms.

$$\frac{40}{80}$$

$$\frac{40 \div 40}{80 \div 40}$$

$$\frac{1}{2}$$

To convert this fraction to a percent, we can first convert to a decimal using long division, and then convert the decimal to a percent by moving the decimal place, or we can set up the following proportion.

$$\frac{1}{2} = \frac{x}{100}$$

$$1 \cdot 100 = 2 \cdot x$$

$$100 = 2x$$

$$\frac{100}{2} = x$$

$$x = 50\,\%$$