Topic: Unit price

Question: If the price of apples is two for $\$0.50$, how many apples can we buy for $\$3.00$?

Answer choices:

A 8

B 6

C 4

D 12

Solution: D

If we can buy two apples for $\$0.50$, that means we can buy one apple for $\$0.25$

$$\frac{2 \text{ apples} \div 2}{\$0.50 \div 2} = \frac{1 \text{ apple}}{\$0.25}$$

Then, since we can buy one apple for $\$0.25$, the number of apples we can buy for $\$3.00$ can be found by dividing the total price ($\$3.00$) by the price per apple ($\$0.25$).

$$\$3.00 \div \$0.25$$

$$12$$

Topic: Unit price

Question: What's the price per ounce if a box of cereal costs $4.80, and there are 16 ounces in the box.

Answer choices:

A $0.50

B $1.00

C $0.40

D $0.30

Solution: D

Since 16 ounces costs $\$4.80$ and we want to find the price per ounce, we can set up a proportion and let the variable x be the price per ounce.

$$\frac{16 \text{ ounces}}{\$4.80} = \frac{1 \text{ ounce}}{x}$$

Now we'll cross multiply.

$$x(16 \text{ ounces}) = \$4.80(1 \text{ ounce})$$

Next we'll divide both sides of this equation by 16 ounces, to get the x all by itself.

$$\frac{x(16 \text{ ounces})}{16 \text{ ounces}} = \frac{\$4.80(1 \text{ ounce})}{16 \text{ ounces}}$$

$$x = \frac{\$4.80(1 \text{ ounce})}{16 \text{ ounces}}$$

Canceling units, we get

$$x = \frac{\$4.80}{16}$$

$$x = \$0.30$$

Topic: Unit price

Question: Write the statement "I can buy 3 pencils for $\$0.25$." as a ratio.

Answer choices:

A $\dfrac{3}{\$0.25}$ pencils

B $\dfrac{1}{\$0.15}$ pencils

C $\dfrac{5}{\$0.50}$ pencils

D None of these

Solution: A

In the statement

> "I can buy 3 pencils for $\$0.25$."

we're saying that we can get 3 pencils for every $\$0.25$. Or 3 pencils per each $\$0.25$. Therefore, we can write that ratio as

$$\frac{3}{\$0.25} \text{ pencils}$$