Topic: Percent markdown

Question: A bike was priced originally at \$100, but it's on sale for \$80. What is the percent markdown?

Answer choices:

A 10 %

B 20 %

C 30 %

D 40 %



Solution: B

The price of the bike was originally \$100, but the price is now reduced by \$20 (\$100 - \$80 = \$20). Therefore, the ratio of the discount amount to the original price is

$$\frac{$20(1)}{$20(5)}$$

$$\frac{1}{5}$$

To find the percent markdown, we convert this from a fraction to a percent.

$$\frac{1}{5} = \frac{x}{100}$$

$$1 \cdot 100 = 5x$$

$$\frac{100}{5} = x$$

$$20 = x$$

The percent markdown is 20%.

Topic: Percent markdown

Question: The regular price of an item was \$38.00. The item is on sale for 25% off. What is the sale price of the item?

Answer choices:

A \$28.50

B \$32.50

C \$25.00

D \$35.50

Solution: A

The price of the item was originally \$38.00, but the price is now reduced by $25\,\%$, which means we need to figure out what $25\,\%$ of \$38.00 is.

$$\frac{25}{100}$$
 · \$38.00

That means that the sale price of the item is

Alternatively, since the item is discounted by $25\,\%$, we know that it will only cost $75\,\%$ of its original price (because $100\%-25\,\%=75\,\%$). So we could also calculate the cost by multiplying the original price by $75\,\%$.

$$\frac{75}{100} \cdot $38.00$$



Topic: Percent markdown

Question: The price of a bicycle was marked down to \$58.00, and the sale price was 75% off of the original price. What was the original price?

Answer choices:

A \$116

B \$416

C \$232

D \$38



Solution: C

Let's let x represent the original price of the bicycle. If we take 75% off the original price, then that means the sale price is 25% of the original price (100% - 75% = 25%). And we know that 25% of the original price is \$58.00:

$$25\%$$
 of $x = 58.00

$$\frac{25}{100} \cdot x = \$58.00$$

$$x = \frac{100}{25} \cdot \$58.00$$

$$x = $232.00$$

So the original price of the bicycle is \$232.00.

