

Name _____

Date _____

Markups and Markdowns Word Problems - Guided Lesson Explanation

Explanation#1

Given that the discount rate is 40%, the sale price is (100 - 40) 60% of the original price.

Let the original price be x .

This reasoning can be expressed as $12 = 0.60x$

Dividing both sides by 0.60 gives an original price of \$20.

So, the original price is \$20.

Now the discount is: Original price X Discount rate = Discount amount

$$\begin{array}{ccccccc} \$20 & & X & & 40\% & & = & & \$8 \end{array}$$

So original price is \$20 and the discount is \$8.

Explanation#2

We have to calculate the selling price of the lamp. We have given original price at \$4 and the discount is 20% off.

Discount (amount) = Original price X Discount rate

$$= \quad \$4 \quad X \quad 20\%$$

$$= \quad \$4 \quad X \quad .20$$

Discount (amount) = $\quad \$0.80$

Original price – Discount = Selling Price

$$\begin{array}{ccccccc} \$4 & & - & & \$0.80 & & = & & \$3.20 \end{array}$$



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Explanation#3

The discount is 40% of \$50 (original price).

The sale price of the pen is the original price minus the discount.

The Discount:

$$40\% \text{ of } 50 = \$20$$

$$\text{Sales price} = \text{Original price} - \text{Discount}$$

$$= \$50 \quad - \quad \$20$$

$$= \$30$$

We can also calculate sales price another way:

$$100 - \text{Discount \%} = 100 - 40 = 60\%$$

$$60\% \times 50 = \$30$$

So the sale price of the pen before sales tax is \$30.

