

Name \_\_\_\_\_

Date \_\_\_\_\_

Mr. Tallman

**Do Now**

1) Gamestop purchases a Playstation 4 from the warehouse for \$250. Gamestop sells a Playstation 4 to customers for \$300. What is the percent of the markup?

orig: 250       $MU = 0.19(1.)$   
 $MU: 50$        $50 = \frac{250(x)}{250}$   
 $\%: X$        $x = 0.20$       **20%**

2) A \$300 is marked up by 25%. What is the new price of the tablet?

orig: 300       $mu = 0.19(1.)$        $300 + 75 =$  **\$375**  
 $mu: X$        $x = 300(0.25)$   
 $\%: 25$        $x = 75$

**Lesson #38 - Discount and Markdown**

The cost of an item decreases when a discount or markdown is applied to that item.

Example 1) Answer the following questions.

A) You are shopping at Macy's and see a pair of jeans that costs \$50. You have a coupon that provides you with a \$5 discount on any purchase. What is the cost of the jeans after the discount?

$\$50 - \$5 =$  **\$45**

B) Morgan is at CVS and wants to buy shampoo. She finds her favorite shampoo that originally costs \$5. She notices that the shampoo has been marked down to \$3. How much money is she saving?

$\$5 - \$3$   
**\$2**

## How To Find Discount/Markdown

<u>Discount/Markdown Equation</u>	<u>Discount/Markdown Proportion</u>
<p style="text-align: center;">Discount or Markdown = Original(%)</p> <p><b>**Percents must be turned into Decimals**</b></p>	$\frac{\text{discount or markdown}}{\text{original}} = \frac{\%}{100}$

Example 2) Madison buys a pair of pants that were originally priced \$60. She has a 30% off coupon.

Part A) How much will she be saving by using the coupon?

Orig: 60       $D = (60 \cdot 0.3)$

Discount: X       $D = \$18$

%: 30

Part B) What is the final cost of the pants?

$60 - 18 = \$42$

Example 3) There's a skateboard competition this Saturday. Jensen would like to purchase a new skateboard which is originally priced at \$50. All skateboards are on sale 20% off. What is the sale price of the skateboard?

Orig: 50      Disc. =  $50(0.2)$        $\$50 - \$10 = \$40$

Discount: X       $X = 50(0.2)$

%: 20       $X = \$10$

Example 4) A car that normally sells for \$20,000 is on sale for \$16,000. Find the discount rate.

Orig: 20,000      ~~Disc. = 20,000(X)~~

Discount: 4,000       $Disc = 20,000(X)$

%: X       $\frac{4,000}{20,000} = \frac{20,000(X)}{20,000}$

$X = 0.2 \rightarrow 20\%$

**Now, You Try!**

5) A \$310 mountain bike is discounted by 35%. Find the sales price of the bicycle.

Orig: 310  
Discount: X  
%: 35

$$\begin{aligned} \text{Disc} &= \text{orig}(\%) \\ X &= 310(.35) \\ X &= \$108.50 \end{aligned}$$

$$310 - 108.50$$

\$201.50

6) A laptop that normally sells for \$687.50 is on sale for \$550. What is the discount rate?

Orig: 687.50  
Discount: 137.50  
%: X

$$\begin{aligned} \text{Disc} &= \text{orig}(\%) \\ 137.50 &= 687.50(X) \\ \frac{137.50}{687.50} & \\ X &= 0.2 \rightarrow \text{20\%} \end{aligned}$$

What happens if you know the discount percent and the sale price, but want to know the original price??

Example 7) A sign says that the price marked on all music equipment is 30% off the original price. You buy an electric guitar for the sale price of \$315. What is the original price?

\$315 is what percent of the original price? 70%

70% of what number is \$315?

Part: X  
whole: 315  
Percent: 70

$$\begin{aligned} \text{Part} &= \text{Whole}(\%) \\ X &= 315(.70) \\ X &= \$220.50 \end{aligned}$$

Example 8) There is a sign at Journey's in the mall that says all shoes are 25% off. The sale price of the pair of shoes you are looking at is \$55. What is the original price of the shoes?

75% of what number is 55?

Part: X  
Whole: 55  
%: 75

$$\begin{aligned} \text{Part} &= \text{Whole}(\%) \\ X &= 55(.75) \\ X &= \$39.60 \end{aligned}$$

**Practice Problems**

9) Sasha went shopping and decided to purchase a set of bracelets for 25% off of the regular price of \$44. Find the sales price of the set of bracelets.

Orig: 44	Disc = orig (1.25)		44 - 11 = <b>\$33</b>
Disc: X	X = 44(.25)		
%: 25	X = \$11		

10) A backpack that usually sells for \$50 is on sale for \$38. What is the percent of discount for the sale price?

Orig: 50	Disc = orig (1.)		
Disc: 12	$\frac{12}{50} = \frac{50(X)}{50}$		
%: X	X = 0.24 → <b>24%</b>		

11) A \$300 tablet is marked up by 25% then marked down by 25%. What is the final price?

Orig: 300	<u>Markup</u>		<u>Mark down</u>	
Mo: X	X = 300(.25)		Orig: 375	X = 375(.25)
%: 25	X = \$75		md: X	X = \$93.75
	300 + 75 = <b>\$375</b>		375 - 93.75 = <b>\$281.25</b>	

12) At Stop-N-Shop, you find a 24 pack of Poland Spring water originally \$4.99. There is a sign above the water that says it is 15% off.

Part A) What is the price of the Poland Spring water after the discount of 15%?

Orig: 4.99	Disc = orig (1.)		4.99 - 0.75
Disc: X	X = 4.99(.15)		<b>\$4.24</b>
%: 15	X = \$0.75		

Part B) When you get up to the register, you realize you have a coupon for an additional 20% off any item. What is the final cost of the Poland Spring water?

Orig: 4.24	Disc = orig (1.)		4.24 - 0.85
Disc: X	X = 4.24(.2)		<b>\$3.39</b>
%: 20	X = \$0.85		