

Name \_\_\_\_\_

Date \_\_\_\_\_

Mr. Tallman

Do Now

1) Janet and 3 of her friends went out to eat at Chili's. If the bill was \$58.65 and they gave their server a 15% tip, how much did they pay altogether?

Orig: 58.65

TIP = orig(15%)

TIP: X

$X = 58.65(0.15)$

Y: 15

$X = \$8.80$

$58.65 + 8.80$

$\$67.45$

2) Mrs. Russell spent \$205.60 at Target on school supplies. If the sales tax is 6%, what was the full amount she paid?

Orig: 205.60

Tax = orig(6%)

Tax: X

$X = 205.60(0.06)$

Y: 6

$X = \$12.34$

$205.60 + 12.34$

$\$217.94$

Lesson #37 - Markup

A **markup** is an increase of a price of an item.

Why would a store want to markup the cost of an item?

To make a profit.

Example 1) Answer the following.

A) The supermarket buys bananas at a cost of \$0.30 per banana. They markup the cost of each banana by \$0.19. How much do they sell each banana for?

$0.30 + 0.19 = \$0.49$

B) A clothing store purchases a sweater at a cost of \$15 from the warehouse. They then sell the sweater at a cost of \$40. By how much money did the store markup the sweater?

$15 + 40 = \$55$

# Markup Equation

Markup = original(%)

\*\*PERCENTS MUST BE CONVERTED TO DECIMALS\*\*

Example 1) A sports store buys skateboards from a supplier and then must markup the price of the skateboards before selling them to customers.

A) What is the retail price (the price after the markup) for skateboards that the manager originally buys for \$35 and marks up 35%?

Original: 35  
 Markup: X  
 Percent: 35

Markup = original(%)  
 $X = 35(.35)$   
 $X = \$12.25$

$35 + 12.25$   
 $\$47.25$

B) Another brand of skateboard originally costs the skateboard store \$56. What is the retail price after a 56% markup?

Original: 56  
 Markup: X  
 Percent: 56

Markup = original(%)  
 $X = 56(.56)$   
 $X = \$31.36$

$56 + 31.36$   
 $\$87.36$

Example 2) A shoe store buys a pair of boots from a supplier for \$75. What is the retail price after a 35% markup?

Original: 75  
 Markup: X  
 Percent: 35

Markup = original(%)  
 $X = 75(.35)$   
 $X = \$26.25$

$75 + 26.25$   
 $\$102.25$

Example 3) A tennis supply shop pays a wholesaler \$90 for a tennis racket and then sells it for \$144. What is the percent of the markup?

Original: 90  
 Markup: 54  
 Percent: X

Markup = original(%)  
 $\frac{54}{90} = \frac{90 \times X}{90}$   
 $X = 0.60$

$60\%$

**Now, You Try!**

4) Games Galore Super Store buys the latest video game at a wholesale price of \$30.00. The markup rate at Game's Galore Super Store is 40%. You use your allowance to purchase the game at the store. What will you pay for the game?

Original: 30  
Markup: X  
Percent: 40

$$\begin{aligned} M_u &= \text{orig} (1.4) \\ X &= 30(0.40) \\ X &= \$12 \end{aligned}$$

$$30 + 12 = \textcircled{\$42}$$

5) A golf store purchases a set of clubs at a wholesale price of \$250. Mr. Edmond learned that the clubs were marked up 200%. What is the selling price of the golf clubs?

Original: 250  
Markup: X  
Percent: 200

$$\begin{aligned} M_u &= \text{orig} (1.2) \\ X &= 250(2) \\ X &= \$500 \end{aligned}$$

$$250 + 500 = \textcircled{\$750}$$

6) The cost of a New York Yankee baseball cap is \$24.00. The local sporting goods store sells it for \$30.00. Find the markup rate.

Original: 24  
Markup: 6  
Percent: X

$$\begin{aligned} M_u &= \text{orig} (1.25) \\ 6 &= \frac{24X}{24} \end{aligned}$$

$$X = 0.25 \rightarrow \textcircled{25\%}$$

7) A store pays \$70 for a bicycle. The cost to the customer is \$84. What is the percent of the markup?

Original: 70  
Markup: 14  
Percent: X

$$\begin{aligned} M_u &= \text{orig} (1.2) \\ 14 &= \frac{70X}{70} \end{aligned}$$

$$X = 0.20 \rightarrow \textcircled{20\%}$$

## Challenge Problems

8) The selling price of skis at a ski shop is \$390. What was the original price if the shop marks up the original price by 30%?

Orig: X      \$390 is 110% of the original price.

Mo:      ~~400~~ 110% of what number is 390?

Y.: 30

Part: 390      Part = whole (Y.)  
whole: X       $390 = X(1.10)$   
Y.: 110       $\frac{390}{1.10} = \frac{X}{1.10}$

$$X = \$354.55$$

9) A shoe store has a markup rate of 75% and is selling a pair of shoes for \$133. Find the price the store paid for the shoes.

\$133 is 175% of the original price.

175% of what number is \$133?

Part: 133

$$\frac{133}{1.75} = \frac{X(1.75)}{1.75}$$

Whole: X

Y.: 175

$$X = \$76$$