6-5 Applying Percent of Increase and Decrease

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NS1.6 Calculate the percentage of increase and decrease of a quantity.

NS1.7 Solve problems that involve **discounts, markups,** commissions, and profit and compute simple and compound interest.

6-5 Applying Percent of Increase and Decrease

Learning objective: **Today we will solve problems that involve percent of decrease.**

NS1.7 **Solve problems that involve discounts, markups,** commissions, and profit and compute simple and compound interest.

Solve: means to find the answer

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APK

$\frac{3}{5}$

1. Let's change $\frac{3}{5}$ to a percent!

Step 1: divide the denominator of the fraction into the numerator!

Step 2 move the decimal two places to the right.

Step 3: rejoice in the correct answer

60%

2. Show me you know how to change $\frac{3}{4}$ to a percent!

75%

6-5 Applying Percent of Increase and Decrease

Concept Development:

The **percent of decrease** describes how much the original amount has been reduced.

$$\text{percent of decrease} = \frac{\text{amount of difference}}{\text{original amount}}$$

The regular price of an MP3 player at Best Buy is $80. This week it is on sale for $60 which is a 25 percent decrease.

Which one shows a percent of decrease?

A. You went to the store to buy a skateboard and it was $16. It is now on sale for $12.

or

B. You go to the store to buy a cell phone. Last week it was $65. This week it is $85.

WHY is this important!

- When you become employed you may need to work out a percent of decrease.
- It is important to know if you are getting a deal at a store.
- It is important because you need to know this in 7^{th} grade.

Finding percent of decrease: I do

A pair of jeans cost $25. This week they are on sale for $20. What is the percent of decrease?

Skill	I do
1. Find the amount of difference. (change)	1. $25 - 20 = 5$
2. Set up the ratio (fraction)	$\frac{\text{amount of difference}}{\text{original amount}} \rightarrow \frac{5}{25}$
3. Find the decimal form.	
4. Write as a percent.	$\frac{5}{25} = 0.20 = 20\%$

From 25 to 20 is a 20% decrease.

Finding percent of decrease: We do

When Mrs. Unger went shopping she noticed that Takis were on sale at the Bridge Store. Last week they were $8. This week they are $6. What is the percent of decrease?

Skill	We do
1. Find the amount of difference. (change)	1. $8 - 6 = 2$
2. Set up the ratio (fraction)	$\frac{\text{amount of difference}}{\text{original amount}} \rightarrow \frac{2}{8}$
3. Find the decimal form.	
4. Write as a percent.	$\frac{2}{8} = 0.25 = 25\%$

From 8 to 6 is a 25% decrease.

Finding percent of decrease: We do

Arturo downloaded songs onto Pepe's Ipod for $10. He then downloaded song's onto Oscar's Ipod for $8. What was the percent of decrease between the cost of the downloads?

Skill	We do
1. Find the amount of difference. (change)	1. $10 - 8 = 2$
2. Set up the ratio (fraction)	$\frac{\text{amount of difference}}{\text{original amount}} \rightarrow \frac{2}{10}$
3. Find the decimal form.	
4. Write as a percent.	$\frac{2}{10} = 0.20 = 20\%$

From 10 to 8 is a 20% decrease.

Closure

1. What term describes how much the original amount has been reduced?

percent of decrease

2. Ms. Duncan wanted to buy tickets to a Giants game. At the stadium they cost $40. If she buys them online they cost $24. What is the percent of decrease?

40% decrease

3. What did you learn today about solving problems that involve percent of decrease?