

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.

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

APK

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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%

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.

6-5 Applying Percent of Increase and Decrease

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 7th grade.

6-5 Applying Percent of Increase and Decrease

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)**
 $25 - 20 = 5$
- 2. Set up the ratio (fraction)**
amount of difference \longrightarrow $\frac{5}{25}$
original amount
- 3. Find the decimal form.**
 $\frac{5}{25} = 0.20 = 20\%$
- 4. Write as a percent.**

From 25 to 20 is a 20% decrease.

6-5 Applying Percent of Increase and 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)
 $8 - 6 = 2$
2. Set up the ratio (fraction)
amount of difference $\longrightarrow \frac{2}{8}$
original amount
3. Find the decimal form.
 $\frac{2}{8} = 0.25 = 25\%$
4. Write as a percent.

From 8 to 6 is a 25% decrease.

6-5 Applying Percent of Increase and 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)**
 $10 - 8 = 2$
- 2. Set up the ratio (fraction)**
amount of difference $\longrightarrow \frac{2}{10}$
original amount
- 3. Find the decimal form.**
 $\frac{2}{10} = 0.20 = 20\%$
- 4. Write as a percent.**

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?