

WARM UP COPY and SOLVE

What is the percent change?

1. From 30 to 60 | 2. From 40 to 75

3. From 80 to 20 | 4. From 110 to 50

5. Which problems above represent decrease? increase?

6. If the values represented money, what else could you say to describe the change?



AGENDA

Warm-Up

Review Hw

Cornell Notes:
Simple Interest

Information
Picture
Solution

HOMEWORK

Simple Interest

$$**I = Prt**$$

I = interest

(\$ earned or added to debt)

P = Principal

(\$ you start with; invested or borrowed)

r = rate

(percent; change to a decimal)

t = time

(measured in years)



Ex) How much time do you have your money in savings if you have earned \$126 in interest at 5% with an initial investment of \$1,800?

$$\underline{I = Prt}$$

$$126 = 1800 \times .05 \times t$$

$$\underline{126 = 90t}$$

$$90 \quad 90$$

$$1.4 = t$$

1.4 years



STEPS TO SOLVE SIMPLE INTEREST Problems:

- 1. Input the information given**
- 2. Solve for the Unknown**

Ex) Find the amount invested if after 4 years, you earn \$3300 in interest at 15%.

$$***I = Prt***$$

$$***3300 = P \times .15 \times 4***$$

$$***\underline{3300} = \underline{.60P}***$$

$$***.60 \quad .60***$$

$$***5,500 = P***$$



$$I = Prt$$



If $P = \$10,500$, $r = 4\%$ and $t = 3$ years, then find the interest.

If you have \$2000 balance on your credit card with a 13% finance charge, how much interest will you pay after 2 years?



If you buy a house for \$105,000 at a 3% interest rate, what is the total you will pay back on the loan after 15 years?



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1. Write the formula for simple interest.
2. Label each part of the formula.
3. What is the interest paid?
Credit card debt of \$7,000, 16%, 8 yrs
4. What is the the amount invested?
\$2,500 earned, 2.5%, 5 years

Simple Interest Formula: $I = Prt$

where ...

"I" - interest or money earned

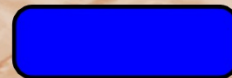
"P" - principal invested or borrowed

"r" - rate (percentage) *use as a decimal

"t" - time (years)

Example 1:

You purchased a car for \$31,000 at a rate of 4.2%. After 4 years how much have you paid in interest?



Example 2:

You earn interest for having a savings account at the bank. If your balance was \$900 and after 7 years you earned \$201.60, what was the rate? (Round to the nearest tenth of a percent.)





You Try.

1) You invested money in Nike. After 6 years with an interest rate of 4.5%, you earned \$1,820. What was the principal investment?



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Class Activity:
Group Review
Problem Cards

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What is the percent change?

1. Find the tax: \$28, 7.5% tax
2. Find the sale price: \$52, 15% discount
3. Find the % change: from 180 to 210
4. The chance that it rains is 34%.
What's the chance it doesn't rain?
5. How much will you earn from an investment of \$2,500 at an interest rate of 2.8% after 6 years?