

7th Grade
Jan 29, 2021

Today we will:

- review HW
- introduce project
- work in partners to complete simple interest task cards



HOMEWORK:

Unit 6 test Fri, Feb 5

Unit 6 Project due
Tues, Feb 9

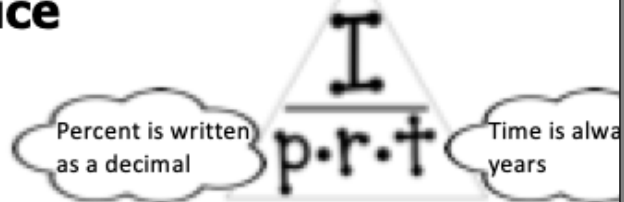
ALEKS assignment:
60 min and 5 topics
due Monday by
11:59pm



Lesson 6 Homework Practice

Simple and Compound Interest

Calculators OK.



Find the simple interest to the nearest cent. (I)

1. \$1300 at 6% for 7 years

$$I = p \cdot r \cdot t$$

$$= 1300 \cdot 0.06 \cdot 7$$

$$= \$546$$

2. \$250 at 8% for 9 months

$$I = 250 \cdot 0.08 \cdot \frac{9}{12} = 0.75 \text{ yr}$$

$$= \$15$$

3. \$725 at 3.25% for 6 months

$$I = 725 \cdot 0.0325 \cdot \frac{6}{12} = 0.5 \text{ yr}$$

$$= \$11.78$$

4. \$1900 at 5.5% for 36 months

$$I = 1900 \cdot 0.055 \cdot 3 = 313.50$$

Find the principal to the nearest cent if... (p)

5. 0.5% interest for 30 months is \$241.50

$$P = \frac{I}{r \cdot t} = \frac{241.50}{0.005 \cdot 2.5} = \$920$$

6. 13% interest for 54 months is \$643.50

$$P = \frac{I}{r \cdot t} = \frac{643.50}{0.13 \cdot \left(\frac{54}{12}\right)} = \$1100$$

Find the simple interest rate to the nearest tenth of a percent if... (r)

7. my interest on \$22,800 after 33 months is \$5831.10

$$r = \frac{I}{p \cdot t} = \frac{5831.10}{22800 \cdot \left(\frac{33}{12}\right)} = 0.093 = 9.3\%$$

8. my interest on \$875 after 3 months is \$5.03

$$r = \frac{I}{p \cdot t} = \frac{5.03}{875 \cdot \left(\frac{3}{12}\right)} = 0.023 = 2.3\%$$

Find the time period (in years) if... (t)

9. my interest on \$550 at 5.75% is \$126.50

$$t = \frac{I}{p \cdot r} = \frac{126.50}{550 \cdot 0.0575} = 4 \text{ yr}$$

10. My interest on \$54,600 at 4.25% is \$8121.75

$$t = \frac{I}{p \cdot r} = \frac{8121.75}{54600 \cdot 0.0425} = 3.5 \text{ yr}$$

11. Lane borrowed \$1200 for a new drum set. She will be paying 6.5% in simple interest over the next 2 years. What is the total amount of interest she will be paying on the loan?

$$I = p \cdot r \cdot t$$

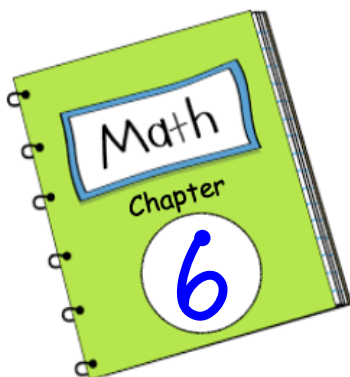
$$= 1200 \cdot 0.065 \cdot 2 = \$156$$

12. Luke puts \$4800 in a savings account. He earns \$16 each month for the next 60 months. Find the simple interest rate for his savings account. *1st question: How much is I? I = \$16 x 60 = \$960*

*Now I can use formula: r = I / (p * t) = 960 / (4800 * 5) = 0.04 = 4%*

13. Toya has a car loan of \$8500. Over the course of the loan, she paid a total of \$5525 in interest at a rate of 13%. How many months was the car loan?

$$t = \frac{I}{p \cdot r} = \frac{5525}{8500 \cdot 0.13} = 5 \text{ yr} \times 12 = 60 \text{ months}$$



TITLE:

Percents



Date	Lesson	Topic/Assignment
1-4	1	Using Percent Proportion Video Notes
1-5	1	HOMEWORK: HW Prac WS
1-5	1	CLASSWORK: Pg253 WS
1-6	2	Finding Percent Mentally Video Notes
1-7	2	HOMEWORK: Skills WS
1-7	2	CLASSWORK: Extra Practice WS
1-8	2	10% Rule Video Notes
1-11	3	Using Percent Equation Video Notes
1-12	3	HOMEWORK: Magnolia Riddle WS
1-12	3	CLASSWORK: Practice WS 6 Boxes
1-14	1-3	CLASSWORK: Reteach Packet
1-19	5	Discount and Markup Video Notes
1-20	5	CLASSWORK: Pg277 WS
1-25	5	CLASSWORK: Polka Dot Task Cards
1-27	6	Simple Interest Video Notes
1-28	6	HOMEWORK: Pg283 #1-4 and #10-15
1-29	6	HOMEWORK: HW Practice WS
1-29	6	CLASSWORK: Simple Interest Task Cards

Name _____ Date _____

HOUSES FOR SALE!

You are thinking of becoming a realtor and want to learn more about the prices of houses in the Greensboro area.

Look up house listings in or around Greensboro and find four houses with a wide variety of prices that interest you. On the following pages, fill out the requirements listed. We will do an example of how to calculate this information with an example listing below:

Original Asking Price: \$100,000

Determine how much commission you would make if the house sold for the original price and you get paid a 6% commission.

0.06 of $100,000 = 6,000$

Determine the commission if you sold the house after a 10% decrease of the original cost.

Amount of decrease = 10% of \$100,000 = \$10,000

New price = \$100,000 - \$10,000 = \$90,000

New commission = $0.06 \times 90,000 = 5,400$

Determine how much the new buyers will actually pay for the house when you factor in a mortgage with simple interest of 4.1% for 30 years.

$I = 100,000 \cdot 0.041 \cdot 30 = 123,000$

Buyer pays:

\$100,000
+ 123,000
\$223,000

$I = p \cdot r \cdot t$

↑ Interest (amount you borrow)
↑ principle (amount you borrow)
↑ rate (written as a decimal)
↑ time, in years

Use this example to complete the following four pages. Then follow the directions on the last page to show your creativity and extend your thinking! :)



In-class activity: Simple Interest Task Cards

#1

If you borrow \$675 for six years at an interest rate of 10%, how much interest will you pay?

#2

How much interest is earned on \$470 at 4% for 7 years?

#3

How much interest
does a \$318
investment earn at
9% over one year?

#4

If you borrow \$225 for
eight years at an
interest rate of 6%,
how much interest will
you pay?

#5

How much interest is earned on a principal of \$646 invested at an interest rate of 5% for 2 years?

#6

If you earned \$200 interest on a loan of \$500 at an interest rate of 2%, how many months was the loan for?

#7

If you earned \$1000 interest on a loan of \$5200 at a yearly interest rate of 25% how many years was the loan for? (Round to the nearest tenth)

#8

How much was your loan through Capital One if you paid \$1200 in interest at a rate of 1.5% for 5 years?