

3-14-18

Aim: SWBAT review.

HW: Test Tomorrow

Do Now: Check hw

HOMEWORK - SIMPLE INTEREST

Find the interest AND total amount to the nearest cent.

- 1) 10% interest on \$1000 for 3 years

$$I = PRT$$

$$I = (1000)(0.1)(3)$$

$$I = \$300$$

Total

$$\$1000 + \$300 = \$1300$$

- 2) 12.25% interest on \$800 for
- $1\frac{1}{2}$
- years

$$I = PRT$$

$$I = (800)(0.1225)(1.5)$$

$$I = \$147$$

Total

$$\$800 + \$147 = \$947$$

- 3) Larry invests \$100 in a savings plan. The plan pays 4.5% interest each year. How much money will Larry earn in interest after 3 years?

$$I = PRT$$

$$I = (100)(0.045)(3)$$

$$I = \$13.50$$

- 4) Bill has \$5900 in his savings account. His account earns 8.5% interest annually. Will Bill have enough money for a new car in one year that costs \$6300?

$$I = PRT$$

$$I = (5900)(0.085)(1)$$

$$I = \$501.50$$

Yes, Bill will have enough to buy the car.

Total

$$\$5900 + \$501.50 = \$6401.50$$

- **5) Tom borrowed \$6,836 from a bank at a rate of 12%. He owed the bank \$1,230.48 in interest at the end of the loan. How long did Tom take the loan out for?

$$I = PRT$$

$$1230.48 = (6836)(0.12)T$$

$$\frac{1230.48}{820.32} = \frac{820.32T}{820.32}$$

$$1.5 = T$$

The length of Tom's loan was 1.5 years.

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- 2) The average gas price in 1970 was \$1.30 a gallon. In 2010 the average price is \$2.95 a gallon. Find the percent of increase; round to the nearest whole.

$$\frac{1.65}{1.30} = \frac{r}{100}$$

$$2.95 - 1.30 = 1.65$$

- 3) Last week you finished Level 2 of a video game in 32 minutes. This week you finished Level 2 in 28 minutes. Find your percent of decrease.

- * 4) You estimate that 200 people attended a school concert. The actual attendance was 240 people. Find the percent error.

$$240 - 200 = 40 \quad \frac{40}{240} = \frac{r}{100}$$

- 5) A package of poster board usually sells for \$8.40. This week the package is on sale for \$6.30. What is the percent of discount (decrease)?

- * 6) A realtor expected 18 people to show up for an open house, but 25 attended. Find the percent error.

$$25 - 18 = 7$$

$$\frac{7}{25} = \frac{r}{100}$$

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- 4) Carrie borrows \$800 from her aunt at 8% interest per year. If she pays her back after 8 months how much does Carrie pay? (Remember time MUST be in years.)

$$T \quad \frac{8}{12} = \frac{2}{3}$$

$$I = PRT$$

$$I = (800)(0.08)\left(\frac{8}{12}\right)$$

$$I = \$42.6666\dots$$

$$I = \$42.67$$

$$\text{Total: } \$800 + \$42.67 = \$842.67$$

- 5) Alice's savings account earned \$60 in 2 years. The interest rate is 2% per year. How much did Alice originally put into the savings account?

- 6) Andrew earns \$1,200 in interest after putting \$2,000 in the bank at a rate of 10%. How long did Andrew have his money in the bank?

- 7) Barbara wants to borrow \$2,000. She can get a loan of \$2,000 at 7% simple interest for 3 years or at 11% simple interest for 2 years. Which loan will cost her more?

$$I = PRT$$

$$I = (2000)(0.07)(3)$$

$$I = \$420$$

$$I = PRT$$

$$I = (2000)(0.11)(2)$$

$$I = \$440$$

more

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