U2 L2-3

Simple Interest Problems

7.RP.3

Name _____ Date _____ Hour _____

1. Reggie's bank is offering a checking account for anyone who has more than $1000. He deposits $3200 into the account at a rate of 4%. How much interest will he earn in 3 years.

2. A credit card company charges 12.5% interest per year on all balances. If you have $4200 on your credit card, how much interest will you be charged in 6 months? What will your new balance be?

3. A local bank is offering a CD (certificate of deposit) at a rate of 2%. If you put $1250 into it, how much interest will you earn after one year? How much money will you have in your account?

4. Peter and Paul are looking to deposit money into a savings account. Peter has $1800 that he wants to deposit at his bank at a rate of 7.5%. Paul has $1900 that he wants to deposit at his bank at a rate of 2%. Who will have more money at the end of one year? Justify your answer.

5. Harold wants to buy a new bike for $575. He currently has $550 saved. He decides to put it into a savings account at a rate of 3.5%. If he keeps the money in the account for one year, will he have enough money to buy his new bike? Justify your reasoning.

Simple Interest Problems

ANSWER KEYS

1. Reggie's bank is offering a checking account for anyone who has more than $1000. He deposits $3200 into the account at a rate of 4%. How much interest will he earn in 3 years.

   i = prt
   i = 3200*0.04*3 = 384
   Reggie will earn $384 in interest over 3 years.

2. A credit card company charges 12.5% interest per year on all balances. If you have $4200 on your credit card, how much interest will you be charged in 6 months? What will your new balance be?

   i = prt (6 months = 0.5 yrs)
   i = 4200*0.125*0.5 = 262.50
   You will be charged $262.50 in interest. Your new balance will be 4200 + 262.50 = $4462.50

3. A local bank is offering a CD (certificate of deposit) at a rate of 2%. If you put $1250 into it, how much interest will you earn after one year? How much money will you have in your account?

   i = prt
   i = 1250*0.02*1 = 25
   You will earn $25 in interest. You will have 1250 + 25 = $1275 in your account

4. Peter and Paul are looking to deposit money into a savings account. Peter has $1800 that he wants to deposit at his bank at a rate of 7.5%. Paul has $1900 that he wants to deposit at his bank at a rate of 2%. Who will have more money at the end of one year? Justify your answer.

   Peter
   i = prt
   i = 1800*0.075*1 = 135
   so 1800 + 135 = $1935 total

   Paul
   i = prt
   i = 1900*0.02*1=38
   so 1900 + 38 = $1938 total

   Paul will have more money at the end of one year.

5. Harold wants to buy a new bike for $575. He currently has $550 saved. He decides to put it into a savings account at a rate of 3.5%. If he keeps the money in the account for one year, will he have enough money to buy his new bike? Justify your reasoning.

   i = prt
   i = 550*0.035*1 = 19.25
   so 550 + 19.25 = $569.25, no Harold won't have enough money to buy his new bike ☹