

*I can solve real-world percent problems.*

**Simple Interest**

Simple Interest: Money paid or earned on the principal amount.

Paid: loans Earned: banking

<b><math>I = prt</math></b>	
<b>I = interest</b>	<b>I = ??</b>
<b>p = investment</b>	<b>p = 100</b>
<b>r = interest rate</b>	<b>r = 5% = 0.05</b>
<b>t = time (years)</b>	<b>t = 2</b>
<b><math>I = (100)(0.05)(2) = \\$10</math></b>	

1) Suppose a bank is offering its customers 3% interest on savings accounts. If a customer deposits \$1500 in the account, how much interest does the customer earn in 5 years?

$$1500 \cdot 0.03 \cdot 5 = \$225$$

How much does the customer have in the bank after 5 years?

$$\$1725$$

3) Suppose you borrow \$10,000 to pay for your last year of college. The interest rate is 8%. If you plan on paying off the loan in 10 years, how much will you pay in interest?

$$10000 \cdot 0.08 \cdot 10 = \$8000$$

How much will you pay for the loan altogether?

$$\$18,000$$

2) Kelly plans to put her graduation money into an account and leave it there for 4 years while she goes to college. She receives \$750 in graduation money that she puts it into an account that earns 4.25% interest. After 4 years, how much has Kelly earned in interest?

$$750 \cdot 0.0425 \cdot 4 = \$217.50$$

How much will be in Kelly's account at the end of four years?

$$\$967.50$$

4) Adam plans to put his birthday money into an account and leave it there for 10 years. He receives \$400 in birthday money that he puts into an account that earns 5% interest. After 10 years, how much has Adam earned in interest?

$$400 \cdot 0.05 \cdot 10 = \$200$$

How much will be in Adam's account at the end of ten years?

$$\$600$$