Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

Algebra 1 PTech

Warm Up

1. Mr. Baker’s contract says that his initial salary is $25,000 and that this will increase at a rate of 5% each year for the first 3 years.

a) What is his salary after his first year? b) What is his salary after the second year?

c) What is his salary after the third year?

2. A car’s value depreciates at a constant rate of 13% each year after it is ‘driven off the lot’. If you purchase a car for $15,595. What is the value of the car after 2 years?

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

Algebra 1 PTech

Cool Down

Stephanie deposits $750 into a savings account that is said to increase in value at a constant rate of 4.25% per year.

1. If she does not make any deposits or withdrawals into the account, write an equation that represents the growth of her savings account over time.

2. Using your equation from above, what is the value of her account after 5 years?

3. She plans to use this money to go on vacation. She knows she will need at least $1500 to go on vacation. Approximately how long will she need to wait before she can go on vacation?