**Challenge Questions** 

1. James bought \$200 worth of stock from an automobile company in Japan at the end of the year. It is expected that the stock value is to increase by 25% annually. Derive an exponential function that expresses James' stock value in t years.

After 6 years, Mary purchased all of the same stock owned by James for \$1000. How much has James gained or lost to the nearest dollar?

2. You invest \$200 when you turn 18 years old. You are told your money will double every four years. How much money will you have when you are 42 years old?

Name:	Date:	Period:

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