Tutor-USA.com Worksheet	Name:		
Applications on Exponential Functions	Date:	Period:	Score:

- A. Find the compound amount at the end of 10 years on an original principal of \$200 at 4%
  - 1) compounded annually
  - 2) compounded semi-annually
  - 3) compounded quarterly
  - 4) compounded continuously
- B. What time is required to double a certain amount
  - 1) compounded annually at 6%
  - 2) compounded continuously at 6%
- C. There are originally 1 000 bacteria in a culture, and 4 hours later there are 4 000. Find the rate of increase per hour of the bacteria.
- D. In a certain chemical reaction, the original concentration of 0.03 is reduced to 0.01 in 4 minutes
  - 1) What is the rate of decrease in concentration per minute?
  - 2) What will be the concentration be in 10 minutes?

TUTOR-USA.COM WORKSHEET

## Answer Key

- A.) \$295.8
  - 2) \$297.10
  - 3) \$297.10
  - 4) \$298.30
- B. 1) 11.9 years
  - 2) 11.55 years
- C. r = 0.3467
- D. 1) -0.2746
  - 2) 0.002

NAME: \_\_\_\_\_