

Quiz

Directions: Carefully read each question below and answer to the best of your ability in the space provided. You **MUST** show your work to receive full credit!

1. (5 points) Suppose \$6,000 is invested at an annual interest rate of 6% compounded continuously. How long will it take for the original investment to double in value (i.e. \$12,000)?

2. (5 points) A spherical balloon is being filled at a rate of $80 \text{ ft}^3/\text{min}$. How fast is the radius increasing, when the radius is 5 feet? Remember that the volume of a sphere is

$$V = \frac{4}{3}\pi r^3.$$

Name: _____

Section (circle one): 021 022 023 024

Question:	1	2	Total
Points:	5	5	10
Score:			