

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**DEPARTMENT OF MATHEMATICS & STATISTICS**  
**Term 181**  
**MATH 101 Quiz 4**

Name: \_\_\_\_\_ ID #: \_\_\_\_\_

1. When a snowball melts its surface area decreases at a rate of  $1 \text{ cm}^2/\text{min}$ . Find the rate at which the diameter decreases when the diameter is  $10 \text{ cm}$ . The surface area of a sphere is  $4\pi r^2$ , where  $r$  is the radius of the sphere.