

- 5) A spherical snowball is rolled in fresh snow, causing it to grow so that its radius increases at a rate of 2 in/sec. How fast is the volume of the snowball increasing when the radius is 3 in?
- 6) A spherical balloon is deflated at a rate of 36π cm³/sec. At what rate is the radius of the balloon changing when the radius is 8 cm?
- 7) Water slowly evaporates from a circular shaped puddle. The area of the puddle decreases at a rate of 4π in²/hr. Assuming the puddle retains its circular shape, at what rate is the radius of the puddle changing when the radius is 4 in?
- 8) A hypothetical square shrinks at a rate of 81 m²/min. At what rate are the sides of the square changing when the sides are 2 m each?