



3. A lady, 5 feet tall, is walking away from a lamppost that is 25 feet high. The lady is 15 feet from the lamppost and walking at a rate of 2.5 feet/second. At what rate is her shadow increasing? [Round your answer to the nearest tenth.]

4. Gas is escaping from a spherical weather balloon at a rate of  $500 \text{ cm}^3/\text{min}$ . How fast is the surface area,  $S$ , shrinking when the radius is 15 meters?  $V = \frac{4}{3}\pi r^3$  and  $SA = 4\pi r^2$