

Related Rates Key (Rev 2018)

- 1) $30 \text{ in}^2/\text{sec}$
- 2) $64\pi \text{ in}^3/\text{min}$
- 3) Decreasing at $3 \text{ ft}/\text{sec}$
- 4) Decreasing at $\frac{8}{225\pi} \text{ ft}/\text{min}$
- 5) $\frac{1}{3\pi} \text{ ft}/\text{min}$
- 6) $\frac{7}{20\pi} \text{ in}/\text{min}$
- 7) Descending at $\frac{8}{3} \text{ meters}/\text{sec}$.
- 8) Sliding down the wall at $\frac{9}{4} \text{ feet}/\text{sec}$
- 9) Radius is changing at a rate of $\frac{2}{25\pi} \text{ meters}/\text{min}$
- 10A) Rate of $12 \text{ ft.}/\text{sec}$.
- 10B) $\frac{9}{1000} \text{ rad.}/\text{sec}$.
- 11) Volume is increasing at a rate of $294 \text{ cm}^3/\text{sec}$.
- 12) $\frac{2}{3} \text{ ft}/\text{sec}$.
- 13) $-78 \text{ miles}/\text{hour}$