

**[3.9]***Answers to evens*

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$$[2] \quad \frac{dr}{dt} = \frac{1}{12\pi} \approx 0.027 \frac{\text{in}}{s}$$

$$[4] \quad \frac{dh}{dt} = \frac{4}{3\pi} \approx 0.42 \frac{\text{cm}}{s}$$

$$[6] \quad \frac{dx}{dt} = \frac{50}{22.9} \approx 2.18 \frac{\text{ft}}{s}$$

$$[8] \quad \frac{dA}{dt} = -4000 + 31250\pi \approx 94175 \frac{\text{ft}^2}{h}$$

$$[10] \quad \frac{dy}{dt} = \frac{120}{150} (5) = 4 \frac{\text{ft}}{s}$$

$$[14] \quad \frac{ds}{dt} = \frac{5580}{150} \approx 37.2 \frac{\text{knots}}{h}$$

$$[22] \quad 2\sqrt{41} \frac{ds}{dt} = \frac{220\pi}{3} \approx 18 \frac{\text{in}}{s}$$