

$$\textcircled{f3} \quad f(1.5) = 4 + 0.5(0.2) \\ = 4.1$$

$$f(2) = 4.1 + 0.5(0.5) \\ = 4.35$$

\textcircled{c}

$$\frac{d(\pi r^2)}{dt} = 2\pi r \frac{dr}{dt} = 2$$

$$\frac{d}{dt} \left(\frac{4}{3} \pi r^3 \right) =$$

$$4\pi r^2 \frac{dr}{dt}$$

$$4\pi (16) \cdot \frac{1}{4\pi}$$

$$= 16 \quad (\text{B})$$

$$2\pi (4) r' = 2$$

$$8\pi r' = 2$$

$$r' = \frac{1}{4\pi}$$