

(18)

$$y = 5^{-x^2 - x}$$

$$\frac{dy}{dx} = 5^{-x^2 - x} \cdot \ln 5 \cdot (-2x - 1)$$

$$\begin{aligned} \textcircled{24} \quad f(x) &= (\sqrt{2})^x & x &= \sqrt{2} \\ f'(x) &= (\sqrt{2})^x \cdot \ln \sqrt{2} & f(\sqrt{2}) &= \sqrt{2}^{\sqrt{2}} \\ 4 - \sqrt{2}^{\sqrt{2}} &= (\sqrt{2})^{\sqrt{2}} \ln \sqrt{2} (x - \sqrt{2}) \end{aligned}$$

$$\frac{dP}{dt} = \frac{dP}{dc} \cdot \frac{dc}{dt} = -3.6$$

0.9 -4