

$$\textcircled{D} \lim_{h \rightarrow 0} \frac{\frac{3}{3} \frac{1}{3+h} - \frac{1}{3} \cdot \frac{3+h}{3+h}}{h}$$

$$\frac{3 - (3+h)}{3(3+h)} = \frac{-h}{3(3+h)h}$$

$$-\frac{1}{3(3+h)} = -\frac{1}{9}$$

$$\begin{aligned} & \textcircled{19} \lim_{h \rightarrow 0} \frac{\sqrt{2+h} - 2}{h} \cdot \frac{\sqrt{2+h} + 2}{\sqrt{2+h} + 2} \\ &= \frac{2+h-4}{h(\sqrt{2+h}+2)} = \frac{h-2}{h(\sqrt{2+h}+2)} \\ &= \frac{\cancel{h}}{\cancel{h}(\sqrt{2+h}+2)} - \frac{2}{h(\sqrt{2+h}+2)} \end{aligned}$$

$$\textcircled{31} \lim_{x \rightarrow 0} \frac{e^x - e^{-x}}{1 - e^x} = \frac{e^x (1 - e^{-x})}{1 - e^x}$$

