

$$\begin{aligned}
 \mathbf{31.} \quad & \lim_{x \rightarrow 2} \frac{x^4 - 16}{x^3 - 8} \\
 &= \lim_{x \rightarrow 2} \frac{(x - 2)(x + 2)(x^2 + 4)}{(x - 2)(x^2 + 2x + 4)} \\
 &= \frac{(4)(8)}{4 + 4 + 4} = \frac{8}{3}
 \end{aligned}$$