

$$\lim_{x \rightarrow 7} (8x^2 + 6)(4x + 4)$$

$$\lim_{x \rightarrow 7} (8x^2 + 6) \times \lim_{x \rightarrow 7} (4x + 4) \quad \text{Product Rule}$$

$$\lim_{x \rightarrow 7} (8x^2) + \lim_{x \rightarrow 7} 6 \times \lim_{x \rightarrow 7} 4x + \lim_{x \rightarrow 7} 4 \quad \text{Sum Rule}$$

$$8 \lim_{x \rightarrow 7} x^2 + 6 \times 4 \lim_{x \rightarrow 7} x + 4 \quad \text{Constant Rule}$$

$$8(x^2) + 6 \times 4(7) + 4$$

$$8(49) + 6 \times 28 + 4$$

$$398 \times 32 =$$

$$12736$$