

$$\lim_{x \rightarrow 3} \frac{\sqrt{6+x} - 3}{\sqrt{4-x} - 1}$$

$$\frac{0}{0} \quad \frac{(\sqrt{6+x} - 3) \cdot (\sqrt{4-x} + 1)}{(\sqrt{4-x} - 1) \cdot (\sqrt{4-x} + 1)}$$

$$\frac{0}{0} \quad \frac{(\sqrt{6+x} - 3) \cdot (\sqrt{4-x} + 1)}{3 - x}$$

$$\frac{0}{0} \quad \frac{(\sqrt{6+x} - 3) \cdot (\sqrt{4-x} + 1) \cdot (\sqrt{6+x} + 3)}{(3-x) \cdot (\sqrt{6+x} + 3)}$$

$$\frac{0}{0} \quad \frac{(6+x-9) \cdot (\sqrt{4-x} + 1)}{(3-x) \cdot (\sqrt{6+x} + 3)}$$

$$\frac{0}{0} \quad \frac{(-3+x) \cdot (\sqrt{4-x} + 1)}{-(-3+x) \cdot (\sqrt{6+x} + 3)} = \frac{2}{-6} = -\frac{1}{3}$$