

Limits

Moderate

Square Roots

1.
$$\lim_{x \rightarrow 4} \left(\frac{\sqrt{x} - 2}{x - 4} \right)$$

2.
$$\lim_{x \rightarrow 13} \left(\frac{\sqrt{x-4} - 3}{x - 13} \right)$$

3.
$$\lim_{x \rightarrow 0} \left(\frac{\sqrt{1+x} - 1}{x} \right)$$

4.
$$\lim_{x \rightarrow 9} \left(\frac{\sqrt{x} - 3}{x - 9} \right)$$

5.
$$\lim_{x \rightarrow 4} \left(\frac{2 - \sqrt{x}}{4 - x} \right)$$

6.
$$\lim_{x \rightarrow \infty} \left(\sqrt{x^2 + 4} - x \right)$$

7.
$$\lim_{t \rightarrow \infty} \left(\frac{\sqrt{t} + t^2}{6t - t^2} \right)$$

8.
$$\lim_{x \rightarrow \infty} \left(\frac{\sqrt{x} + x^2}{4x - x^2} \right)$$

9.
$$\lim_{x \rightarrow \infty} \left(\frac{\sqrt{x}}{x - 5} \right)$$

10.
$$\lim_{x \rightarrow \infty} \left(\frac{\sqrt{x} + x^2}{3x - x^2} \right)$$

Answers

Limits

Moderate

Square Roots

1. $\frac{1}{4}$

2. $\frac{1}{6}$

3. $\frac{1}{2}$

4. $\frac{1}{6}$

5. $\frac{1}{4}$

6. 0

7. -1

8. -1

9. 0

10. -1