

[1] Evaluate the following limit

$$\lim_{x \rightarrow 2} \frac{x^2 - 9x + 14}{x^2 - 5x + 6}$$

[2] Evaluate the following limit

$$\lim_{x \rightarrow -\infty} \frac{x^3 - x + 2}{x^2 + 1}$$

[3] If the following is true, what is the value of c ?

$$\lim_{x \rightarrow 1} \frac{x^2 - 2x + c}{x^2 - 1} = 0$$

[4] Evaluate $f'(1)$ and $f''(1)$:

$$f(x) = \frac{x\sqrt{x}}{\sqrt[3]{x^5}}$$

[5] Evaluate $f'(1)$ and $f''(1)$:

$$f(x) = \frac{x^2 - 1}{\sqrt{x^2 + 1}}$$

[6] Evaluate $f'(1)$ and $f''(1)$:

$$f(x) = (\sqrt{x} + 1)^5$$