

MCS21 Homework 5

1. $\lim_{t \rightarrow -2} \frac{t^3 + 8}{t + 2} =$

2. $\lim_{x \rightarrow 2} \frac{x^2 - 4x + 4}{x^2 + x - 6} =$

3. $\lim_{t \rightarrow 1} \frac{t^3 + t^2 - 5t + 3}{t^3 - 3t + 2} =$

4. $\lim_{x \rightarrow \infty} \frac{1}{x - 12} =$

5. $\lim_{x \rightarrow \infty} \frac{5x^2 + 7}{3x^2 - x} =$

6. $\lim_{s \rightarrow \infty} \sqrt[3]{\frac{3s^7 - 4s^5}{2s^7 + 1}}$

7. $\lim_{x \rightarrow \infty} \frac{\sqrt{5x^2 - 2}}{x + 3} =$

8. $\lim_{y \rightarrow \infty} \frac{2 - y}{\sqrt{7 + 6y^2}} =$

9. $\lim_{x \rightarrow \infty} \frac{\sqrt{3x^4 + x}}{x^2 - 8} =$

10. $\lim_{x \rightarrow 3^-} \frac{x}{x - 3} =$

11. $\lim_{x \rightarrow 2^+} \frac{x}{x^2 - 4} =$

12. $\lim_{x \rightarrow 2} \frac{x}{x^2 - 4} =$

13. $\lim_{x \rightarrow -\infty} \frac{\sqrt{2x^2 + 1}}{3x - 5} =$

14. $\lim_{x \rightarrow -\infty} \frac{5\sqrt{1 + 9x^2}}{\sqrt{5x^2}} =$

15. $\lim_{x \rightarrow -\infty} \frac{1}{\sqrt{6x^2 - x^3}} =$

16. $\lim_{x \rightarrow -\infty} \frac{7x^3}{\sqrt[3]{8 - x^9}} =$