MCS21 Homework 1

1. $\lim_{x \to 1} (3x - 1) =$

2. $\lim_{x \to 5} x^2 =$

3. $\lim_{x \to 0} x^2 - 2x + 1 =$

4. $\lim_{x \to 1} (x + 3)^2 =$

5. $\lim_{t \to 2} \frac{t + 3}{t + 2} =$

6. $\lim_{x \to 5} \frac{x^2 - 25}{x - 5} =$

7. $\lim_{x \to 5} \frac{x^2 - 25}{x + 5} =$

8. $\lim_{x \to 4} \frac{x - 4}{x^2 - 5x + 4} =$

9. $\lim_{t \to 1} \frac{t^2 - 3t + 2}{t^2 - 1} =$

10. $\lim_{x \to 1} \frac{x^2 + x - 2}{x^2 - 1} =$

11. $\lim_{x \to b} \frac{x^2 - b^2}{x - b} =$

12. $\lim_{x \to 2} \frac{\frac{1}{x} - \frac{1}{2}}{x - 2} =$

13. $\lim_{x \to -2} \frac{x^3 + 8}{x^4 - 16} =$

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

15. $\lim_{x \to 4} \frac{x^3 - 64}{x^3 - x^2 - 11x - 4} =$