

Algebraic Manipulations Limits WS

Name _____

1. $\lim_{x \rightarrow -3} \frac{x^2 - x - 12}{x + 3}$

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

3. $\lim_{x \rightarrow 0} \frac{(x - 5)^2 - 25}{x}$

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

5. $\lim_{x \rightarrow 1} \frac{x^3 - 1}{x^2 - 1}$

6. $\lim_{x \rightarrow 0} \frac{(2 + x)^3 - 8}{x}$

7. $\lim_{x \rightarrow 9} \frac{9 - x}{3 - \sqrt{x}}$

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

9. $\lim_{x \rightarrow 2} \frac{x^4 - 16}{x - 2}$

10. $\lim_{x \rightarrow 0} \frac{\sqrt{2 - x} - \sqrt{2}}{x}$

11. $\lim_{x \rightarrow 1} \frac{1}{x - 1} - \frac{2}{x^2 - 1}$

12. $\lim_{x \rightarrow 0} \left[\frac{1}{x\sqrt{1+x}} - \frac{1}{x} \right]$