

Name: _____

MA 2310 Chapter 2 - Mastery quiz

Show all work and answers on a separate sheet of paper.

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

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

3. $\lim_{x \rightarrow 4} \frac{\sqrt{x} - 2}{x-4}$

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

5. $\lim_{x \rightarrow 0} \frac{\sin(x)}{x}$

6. $\lim_{x \rightarrow 0} \frac{\sin(2x)}{x}$

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

8. $\lim_{x \rightarrow \infty} \frac{2x^3 + 5x + 2}{x^3 + 2}$

9. $\lim_{x \rightarrow \infty} \frac{2x^2 + 5x + 2}{x^4 + 2}$

10. $\lim_{x \rightarrow -\infty} \frac{2x^2 + 5x + 2}{x^2 + 2}$

11. $\lim_{x \rightarrow 0} \frac{1}{x}$

12. $\lim_{x \rightarrow 0} \frac{1}{x^2}$

13. $\lim_{x \rightarrow 0^+} \frac{|x|}{x^3}$

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

15. $\lim_{x \rightarrow 0} \frac{2x^2 + 5x + 2}{x+2}$