

Name: _____ Score: _____

Teacher: _____ Date: _____

Introduction to limits

Calculate the following limits if they exist:

1. $\lim_{x \rightarrow 5} \frac{x^2 - 25}{x - 5}$

2. $\lim_{x \rightarrow 4} \frac{x^2 + 2x - 24}{x - 4}$

3. $\lim_{x \rightarrow 2} \frac{x^2 + 3x - 10}{x - 2}$

4. $\lim_{x \rightarrow 0} \frac{x^3 + 5x^2 + 8x}{x}$

5. $\lim_{x \rightarrow 0} \frac{x^2 - 2x + 3}{x - 2}$

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

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

8. $\lim_{x \rightarrow 3} \frac{x^2 - 9}{x - 3}$

9. $\lim_{x \rightarrow 8} \frac{x - 8}{x^2 - 21x + 104}$

10. $\lim_{x \rightarrow -10} \frac{x^2 + 4x - 60}{x^2 + 2x - 80}$

11. $\lim_{x \rightarrow 9} \frac{5x^2 - 41x - 36}{x^2 + 21x + 108}$

12. $\lim_{x \rightarrow 6} \frac{3x^2 - 24x + 36}{x - 6}$

