

Unit 2 Worksheet 4

AP Calculus AB

Evaluate the following limits.

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

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

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

4. $\lim_{x \rightarrow 3} \frac{2x}{x^2-6x+9} = \infty$

5. $\lim_{x \rightarrow 6^+} \frac{x+6}{x^2-36} = \infty$

6. $\lim_{x \rightarrow 6^-} \frac{x+6}{x^2-36} = -\infty$

7. $\lim_{x \rightarrow 0} \frac{6}{x^2} = \infty$

8. $\lim_{x \rightarrow 2} \frac{1-x}{(x-2)^2} = -\infty$

9. $\lim_{x \rightarrow -5} \frac{x^2}{x^2-25} = \text{DNE}$

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

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

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