

Name: _____

TC

Classwork 9

1. Find each limit.

a) $\lim_{x \rightarrow 0^+} \frac{2x - 32}{x^2}$

b) $\lim_{x \rightarrow 0^-} \frac{2x - 32}{x^2}$

c) $\lim_{x \rightarrow 0} \frac{2x - 32}{x^2}$

2. Find $\lim_{x \rightarrow \infty} \frac{x^7 + 5x^4 - 3}{3x^7 - 2x^2 + 1}$

3. Find $\lim_{x \rightarrow \infty} \frac{4x^7 - 3x^4 - 2x^2}{2x^4 - 5x}$

4. Find $\lim_{x \rightarrow \infty} \frac{3x^3 - x - 1}{5x^3 + x^2}$

5. Find $\lim_{x \rightarrow \infty} \frac{x^3 + 4x^2 + 7}{5x^5 - 8x}$

6. Find the limit of the equation in #5 as $x \rightarrow 0$

7. Find $\lim_{x \rightarrow \infty} \frac{4x^5 + x^3 - 5x^2}{x^7 - 10x^4 + x^2}$

8. Find $\lim_{x \rightarrow 0} \frac{4x^5 + x^3 - 5x^2}{x^7 - 10x^4 + x^2}$

9. Find each limit.

a) $\lim_{x \rightarrow 4} \frac{3x^2 - 48}{x^2 - 5x + 4}$

b) $\lim_{x \rightarrow \infty} \frac{3x^2 - 48}{x^2 - 5x + 4}$

c) $\lim_{x \rightarrow 0} \frac{3x^2 - 48}{x^2 - 5x + 4}$

Practice Problems

1. Find $\lim_{x \rightarrow 3} \frac{3x^2 - 15x + 18}{x^2 - 9}$

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

3. Find $\lim_{x \rightarrow \infty} \frac{3x^2 - 15x + 18}{x^2 - 9}$

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