

Calculus AB

1-3

(Day 1 - Handout)

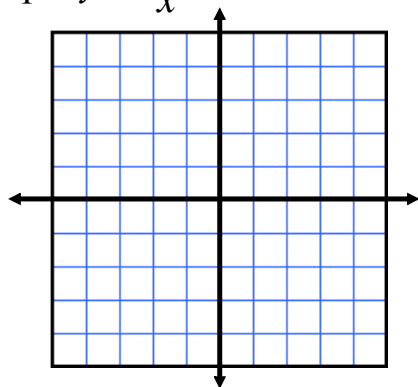
Evaluating Limits Analytically

Find each limit.

1) $\lim_{x \rightarrow 3} x^3$

7) $\lim_{x \rightarrow 5} \frac{x^2 - 25}{x - 5}$

Graph $y = \frac{1}{x}$



Find each limit.

$$\lim_{x \rightarrow 0} \frac{1}{x} =$$

$$\lim_{x \rightarrow \infty} \frac{1}{x} =$$

$$\lim_{x \rightarrow -\infty} \frac{1}{x} =$$

Asymptote Rules

given $f(x) = \frac{p(x)}{q(x)}$

vertical asymptotes:

hole:

horizontal asymptotes:

a:

b:

c:

Find each limit.

$$17) \lim_{x \rightarrow \infty} \frac{2x - 5}{x} =$$

$$7) \lim_{x \rightarrow \infty} \frac{3x^2 + 4}{x} =$$

Assignment:
Worksheet 1-3
1-35 all