

# Calculus AB

1-3

(Day 2 - Text)

## Evaluating Limits Analytically

Find the limit of the trigonometric function.

$$*1) \lim_{x \rightarrow \frac{\pi}{6}} \sin x$$

$$*2) \lim_{x \rightarrow 2} \csc \pi x$$

Use the information to evaluate the limits. (pg 67)

$$38) \lim_{x \rightarrow c} f(x) = \frac{3}{2}$$

$$\lim_{x \rightarrow c} g(x) = \frac{1}{2}$$

$$a) \lim_{x \rightarrow c} [4 f(x)] =$$

$$b) \lim_{x \rightarrow c} [f(x) + g(x)] =$$

$$c) \lim_{x \rightarrow c} [f(x)g(x)] =$$

$$d) \lim_{x \rightarrow c} \frac{f(x)}{g(x)} =$$

Find the limit (if it exists). (Do these samples as needed by class)

$$56) \lim_{x \rightarrow 3} \frac{\sqrt{x+1} - 2}{x-3}$$

$$60) \lim_{x \rightarrow 0} \frac{\frac{1}{x+4} - \frac{1}{4}}{x}$$

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