

## Quiz 1

## Calculus 1

9/7/2016

1. Fill each blank below with a limit law justifying that equality. Each blank is worth 1 point.

Difference Law for Limits

$$\lim_{x \rightarrow 2} 5x^2 - 3 = \lim_{x \rightarrow 2} (5x^2) - \lim_{x \rightarrow 2} 3$$

Constant Multiple Law for Limits

$$= 5 \lim_{x \rightarrow 2} (x^2) - \lim_{x \rightarrow 2} 3$$

Power Law for Limits

$$= 5 \left( \lim_{x \rightarrow 2} x \right)^2 - \lim_{x \rightarrow 2} 3$$

Law X for Limits

$$= 5(2)^2 - \lim_{x \rightarrow 2} 3$$

Constant Law for Limits

$$= 5 \cdot 4 - 3$$

$$= 20 - 3$$

$$= 17$$

Excellent