Math 1325 Quizzes

Contents

Standards Quiz **Week 1** Name: _____
Math 1325

0 1 2 3 4 **S1**: Find these limits:

1. $\lim_{x \to 3} 3x^2 - 4x$

2. $\lim_{n \to 6^+} \frac{4}{n-6}$

3. $\lim_{x \to \infty} x^2 + \frac{1}{x}$

Is $g(x) = \frac{x^2-4x+4}{x-2}$ continuous at $x = 3$? What about $x = 2$? Explain (prove) your answer for each.

0 1 2 3 4 **S1**: Find the equation of a line tangent to $y = 3x^2 - x + 1$ at $x = 2$. Use the limit definition of a derivative to find the line's slope.

Standards Quiz **Week 2A** Name: _____
Math 1325

0 1 2 3 4 **S2**: Find the equation of a line tangent to $y = 3x^2 - x + 1$ at $x = 2$. Use the limit definition of a derivative to find the line's slope.

0 1 2 3 4 **S3**: Find derivatives of the following functions:

- $y = x^4 - 3x^{\frac{3}{5}}$
- $f(x) = e^{\pi}$
- $y = 7x^2 - 19x + 6$
- $g(x) = \frac{3}{x^3} + \frac{x^7}{9}$
- $y = \frac{x^2+x^3}{x^2}$
- $k(x) = \ln(2) + \frac{1}{\sqrt[3]{8x^3}}$