

Calculus:

Homework
9/25 – 9/29

due: Tuesday: read pp. 105-108

Determine the following limits:

1. $\lim_{x \rightarrow 4} (3x + 5)$
2. $\lim_{x \rightarrow 2} \frac{x-1}{3x}$
3. $\lim_{x \rightarrow -3} (x^2 + 5x - 1)$
4. $\lim_{x \rightarrow 0} \cos x$
5. $\lim_{x \rightarrow -1} (3 - 5x)^2$
6. $\lim_{x \rightarrow 0} \frac{x^3 - 5x}{x}$

Wednesday: read pp. 108-111

1. pp. 113-115 / #4, 6, 7, 9, 12, 14, 60, 61

2. Evaluate: a. $\lim_{x \rightarrow 9} 4$ b. $\lim_{x \rightarrow 2} \sqrt{\frac{4x+1}{8-x^2}}$ c. $\lim_{x \rightarrow -1} \sqrt[3]{\frac{4x+3}{x^2+7}}$ d. $\lim_{x \rightarrow 6} f(x)$, if $f(x) = \begin{cases} 2x - 3, & x \neq 6 \\ 1, & x = 6 \end{cases}$

on: Wednesday: quiz

due: Thursday:

1. pg. 114 / #20, 22, 24, 26

2. pg. 142 / #2, 3, 6, 12

3. Evaluate: a. $\lim_{x \rightarrow 0} \frac{\sqrt{x+4}-2}{x}$ b. $\lim_{x \rightarrow \infty} \frac{\sqrt{9x^2-1}}{2x+3}$

Friday: read pp. 111-113

1. pp. 14-115 / #40, 42bc, 43bc, 45, 51, 54

2. Evaluate: a. $\lim_{x \rightarrow 6} \llbracket x \rrbracket$ b. $\lim_{x \rightarrow 0} \frac{|x|}{x}$

Monday: read pp. 131-135

1. pp. 142-143 / #15, 18, 33, 34, 44

2. Evaluate: $\lim_{x \rightarrow 5} \frac{2x+1}{x-5}$