Homework

Amanda King
Calculus 1 - Finding Limits Numerically

August 24, 2015

Exercise 1. $f(x)$ is given by formula:

Exercise 1. We are finding limits by using the "plug-in method" for numbers approaching 3 from the right :

$$\lim_{x\to 3^+}(x^2+2) =?$$

Consider for "x" : $3.1, 3.01, 3.001, 3.0001$

$\lim(3.1^2+2) = 11.61$

$\lim(3.01^2+2) = 11.0601$

$\lim(3.001^2+2) = 11.006001$

$\lim(3.0001^2+2) = 11.0006$

Proposition . $\lim_{x\to 3^+}(x^2+2)$ Let $x = 11$.

Proof. Since all of the outcomes just keep getting closer to 11 one can assume that the limit as "x" approaches 3 from the right the limit will be equal to 11. □