

ESP Quiz 2 (Kouba)

Please PRINT your name here :

This quiz is due next Tuesday at the beginning of ESP.

1.) (10 pts.) Determine the domain for the following function. $f(x) = \frac{6}{2 - \sqrt{x-1}}$

2.) (10 pts.) Determine the range for the following function. $f(x) = \sqrt{4 - (x-1)^2}$

3.) (10 pts. each) Evaluate the following limits. Make proper use of limit notation.

a.) $\lim_{x \rightarrow 1} \frac{x^4 - 1}{x^3 - 1}$

b.) $\lim_{x \rightarrow \infty} \frac{3x^2 - 7x + 5}{8x^2 - x + 4}$

c.) $\lim_{x \rightarrow -\infty} \frac{x}{\sqrt{x^2 + 100}}$