5th Six Weeks Practice

Calculators may be used on #1 only.

1) The value of a painting increases from \$10,000 to \$18,000 over a 10-year period. Find the average annual rate of continuous appreciation to 0.001%

2) Solve: $\frac{u^2}{6} \geq \frac{u+1}{3} - \frac{u-2}{4}$

3) Solve $5 - 3^{2x} = -15$ for x. Do NOT give a decimal answer. Express your answer in the form $\frac{\ln a}{\ln b}$ where a and b are integers.

4) Evaluate $\frac{x-y}{1+xy}$ for $x = -1$ and $y = \frac{\sqrt{3}}{2}$.

Express your answer in simplified form without any complex fractions.

5) For $f(x) = \frac{x}{x+1}$, evaluate and simplify the average rate of change from x to c.