

QUIZ 1

1. (2 points) Simplify: $2 + \frac{x}{\left(\frac{3}{x+1}\right)}$

2. (2 points) Factor: $x^4 - x^3 - 6x^2$

3. (2 points) Match the radian measurement of the angle to its corresponding degree measurement.

a. $\frac{\pi}{2}$ 30°

b. $\frac{\pi}{6}$ 135°

c. $\frac{3\pi}{4}$ 60°

d. $\frac{\pi}{3}$ 90°

4. (4 points) Find the 2nd derivative of $f(x) = \arctan(2x)$. (Recall, that $\arctan(u) = \tan^{-1}(u)$.)

$$f'(x) =$$

$$f''(x) =$$