

Quiz #3

Directions: Carefully read each question below and answer to the best of your ability in the space provided. You **MUST** show your work to receive full credit!

1. (3 points) Choose the correct setup for the partial fraction decomposition of

$$\frac{x}{(x+1)(x-1)^3(x^2+4)}.$$

- A. $\frac{A}{x+1} + \frac{B}{(x-1)^3} + \frac{C}{(x-1)^2} + \frac{D}{x-1} + \frac{E}{x^2+4}$
B. $\frac{A}{x+1} + \frac{B}{(x-1)^3} + \frac{C}{(x-1)^2} + \frac{D}{x-1} + \frac{Ex+F}{x^2+4}$
C. $\frac{A}{x+1} + \frac{B}{(x-1)^3} + \frac{C}{(x-1)^2} + \frac{D}{x-1} + \frac{E}{x-2} + \frac{F}{x+2}$
D. $\frac{A}{x+1} + \frac{B}{(x-1)^3} + \frac{Cx+D}{x^2+4}$
E. None of the above

2. (7 points) Evaluate the following integral:

$$\int \frac{1}{x+x^2} dx.$$

Name: _____

Section (circle one): 001 002

Question:	1	2	Total
Points:	3	7	10
Score:			