

NAME: \_\_\_\_\_ Score \_\_\_\_\_/10

1. Simplify completely:  $\frac{x^2 - \frac{1}{x}}{x + 1 + \frac{1}{x}}$

$$\frac{x^2 - \frac{1}{x}}{x + 1 + \frac{1}{x}} = \frac{\frac{x^3 - 1}{x}}{\frac{x^2 + x + 1}{x}} = \left(\frac{x^3 - 1}{x}\right)\left(\frac{x}{x^2 + x + 1}\right) = \frac{(x-1)(x^2 + x + 1)}{x^2 + x + 1} = x - 1$$

2. A matrix is a **rectangular** array of numbers.
3. **T** **F** If two matrices have the same order, their sum is defined.
4. **T** **F** If two matrices have the same order, their product is defined.
5. **T** **F** A matrix with 5 rows and 2 columns is a 2X7 matrix.
6. **T** **F** Composition of functions is commutative.