

MATH 141: QUIZ 1

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Name: _____

No phone or calculator. You must show all work to receive full credit. Simplify when applicable.

1. **(5 points)** Simplify the following expression:

$$\frac{\frac{1}{x^2} - \frac{1}{9}}{x - 3}$$

2. **(5 points)** Find the zeros of

$$f(x) = 2x^2 - 9x - 5$$

3. **(1 point each)** Consider the equation below. Answer “True” or “False” for the following statements.

$$y = x^2 + 7$$

(a) y is a function of x

(b) y is an odd function.

(c) The domain of this function is \mathbb{R} .

(d) $f(1) = 2$

(e) $y = (x + 1)(x - 7)$