Northern Michigan University (Marquette Co, MI)

MA111-04-26W: College Algebra (Andrew A. Poe) Name: _____
Quiz 3
Friday 13 January 2026 2:00 P.M. EST

Time: 15 minutes

1. Solve each of the following equations for y. For each, answer if y is a function of x.

$xy = 17$ $y = 17/x$ YES

$x/y = 17$ $x = 17y$ $y = x/17$ YES

$x^2 + y^2 = 17$ $y^2 \geq 17 - x^2$ $y = \pm\sqrt{17-x^2}$ NO

2. Use interval notation to express the range $5 \leq x < 6$.

$[5, 6)$

What is the complement of this range in interval notation?

$(-\infty, 5) \cup [6, \infty)$

3. Find the domain of the following function:

$$f(x) = \frac{\sqrt{x-2}}{5+\sqrt{x-3}}$$

$x - 2 \geq 0$ $x \geq 2$

$x - 3 \geq 0$ $x \geq 3$

$5 + \sqrt{x-3} \neq 0$
ALWAYS TRUE

SO $x \geq 3$ $[3, \infty)$