

MATH 162 Quiz 4 NAME:

1. Find an equation of the line passing through $A(-1, 4)$ with slope $\frac{2}{3}$.

Using the point-slope form of an equation, we obtain

$$y - 4 = \frac{2}{3}(x + 1), \quad \text{or } y = \frac{2}{3}x + \frac{14}{3}.$$

2. Find an equation of the line parallel to $5x - 2y = 4$ and passing through $(2, -4)$.

The slope of the line $5x - 2y = 4$ is $\frac{5}{2}$, so that the line in question must have the slope $\frac{5}{2}$. Hence

$$y + 4 = \frac{5}{2}(x - 2).$$

3. Find the domain of $f(x) = \sqrt{9 - x^2}$.

Domain of $f = [-3, 3]$ as $9 - x^2 \geq 0$.