1. (16 pts) Determine the domain of the function.

(1) $\dfrac{1}{3x - 2}$

(2) $\dfrac{x}{x^2 - 2x - 3}$

(3) $\sqrt{x - 1}$

(4) $\sqrt{4 - x^2}$

2. (4 pts) Find an equation for the line that passes through the point $(2, 4)$ and has slope 4. Find the y-intercept of the line.