Quiz 1

1. Find the domain and range of $f(x) = \dfrac{x^2 - 1}{x^2 - 2x - 2}$.

$$D = \{x \in \mathbb{R} \mid x \neq 1 \pm \sqrt{3}\}$$
$$R = \mathbb{R}$$

2. Find the equation of the line passing through the points $(1, 2)$ and $(-3, 1)$, and put it in slope-intercept form.

$$y = \frac{1}{4}x + \frac{7}{4}$$