Name _____ Transitions, Quiz 2

1) Write the following mathematical statement as an English sentence:

$$\forall_{x \geq 0}(2x \in 2\mathbb{Z})$$

For all x at least 0, $2x$ is even.

2) Sketch a proof of the following fact:

$$\exists_{x \in \mathbb{Z}}\left(\frac{x}{7} \in \mathbb{Z}\right)$$

Choose $x = 21$. Then we get:

$$\frac{21}{7} = 3 \in \mathbb{Z}$$