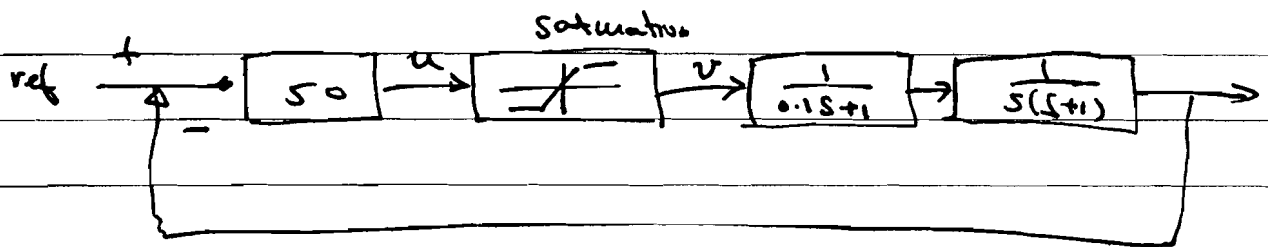


A4 Use the describing function method to determine if the following system has a limit cycle. If a limit cycle exists, determine its amplitude and frequency.



The saturation element is defined as:

$$v = u \quad \text{if } |u| < 10$$

$$v = 10 \quad \text{if } u \geq 10$$

$$v = -10 \quad \text{if } u \leq -10$$