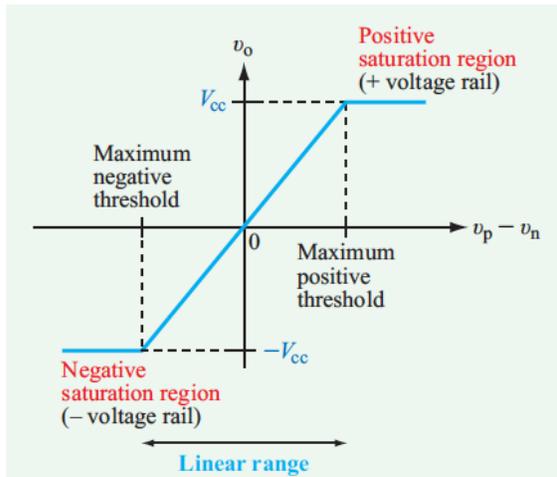


Concept Question 4-1: How is the linear range of an op amp defined?



**Figure 4-3:** Op-amp transfer characteristics. The linear range extends between  $v_o = -V_{cc}$  and  $+V_{cc}$ . The slope of the line is the op-amp gain  $A$

The linear range refers to the maximum possible extent of the op-amp's output voltage, which extends between the negative saturation level,  $-V_{cc}$  and the positive saturation level,  $+V_{cc}$ .