Special Problem 2.6-1
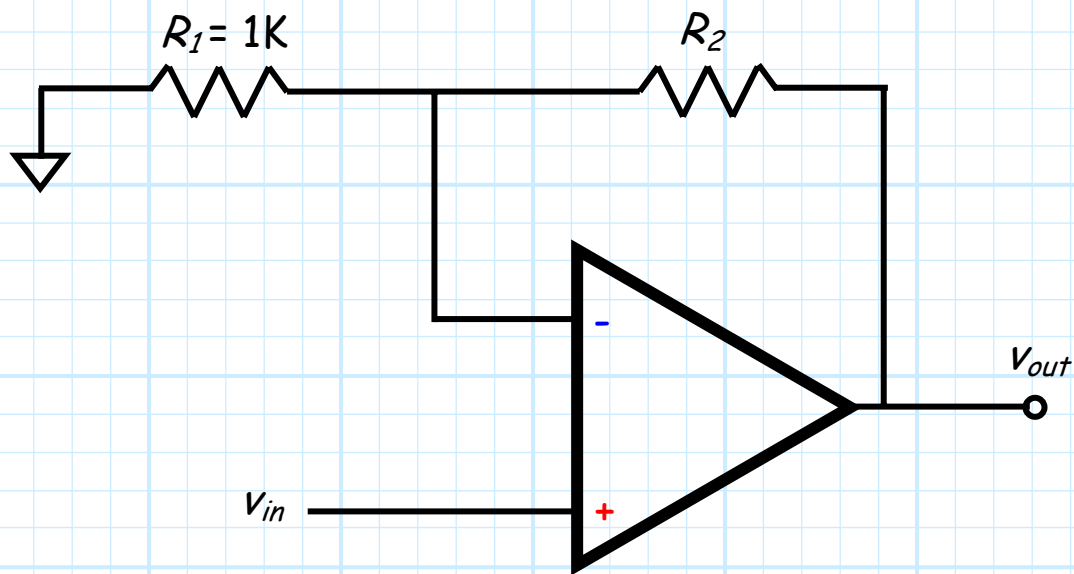
The **input** to the circuit below is:

$$v_{in}(t) = 0.5\,t^2 - 0.5 \quad V$$

where time **t is in microseconds**.

The **slew rate** of the op-amp is **10 V/μsec**.

The **DC power supplies** are V^+ = 15 V and V^- = -15 V.

1) If R_2 = 1 K, at what time t will the output signal $v_{out}(t)$ begin to distort?

2) If R_2 = 9 K, at what time t will the output signal $v_{out}(t)$ begin to distort?