Special Problem 2.8-5

The op-amp in the circuit below has a slew rate of 10 volts/ μ sec.

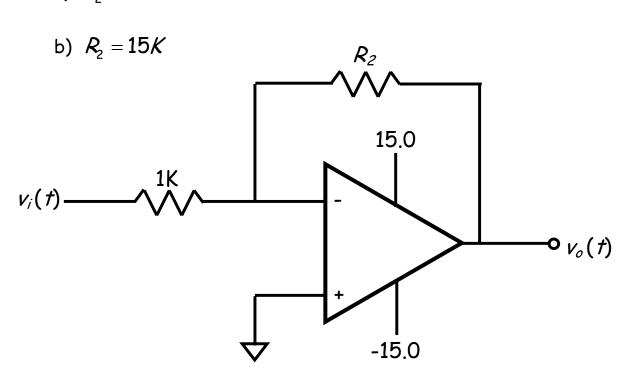
Its output voltage is limited to $-15 < v_o(t) < 15$ (otherwise the output saturates).

The input signal is:

$$v_i(t) = 0.25t^2$$
 V

where time *t* is in **microseconds**.

Determine the time t (in microseconds) when the output signal $v_o(t)$ begins to **distort** for any reason, if:



a) $R_2 = 3K$