

### **Answer on Question #50859, Physics, Electric Circuits**

a) Calculate the minimum slew rate of the op-amp used for obtaining 2 MHz frequency,  $\pm 10\text{V}$  amplitude triangular wave signal at the output.

**Answer:**

The slew rate for a given amplitude  $U$  and frequency  $f$  is

$$\text{slewrates} = 2\pi fU = 2\pi \cdot 2 \cdot 10^6 \cdot 10 = 4\pi \cdot 10^7 \text{ V} / \text{s} \approx 125.6 \text{ V} / \mu\text{s}$$

A minimum slew rate of 125.6 volts per microsecond is required.

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