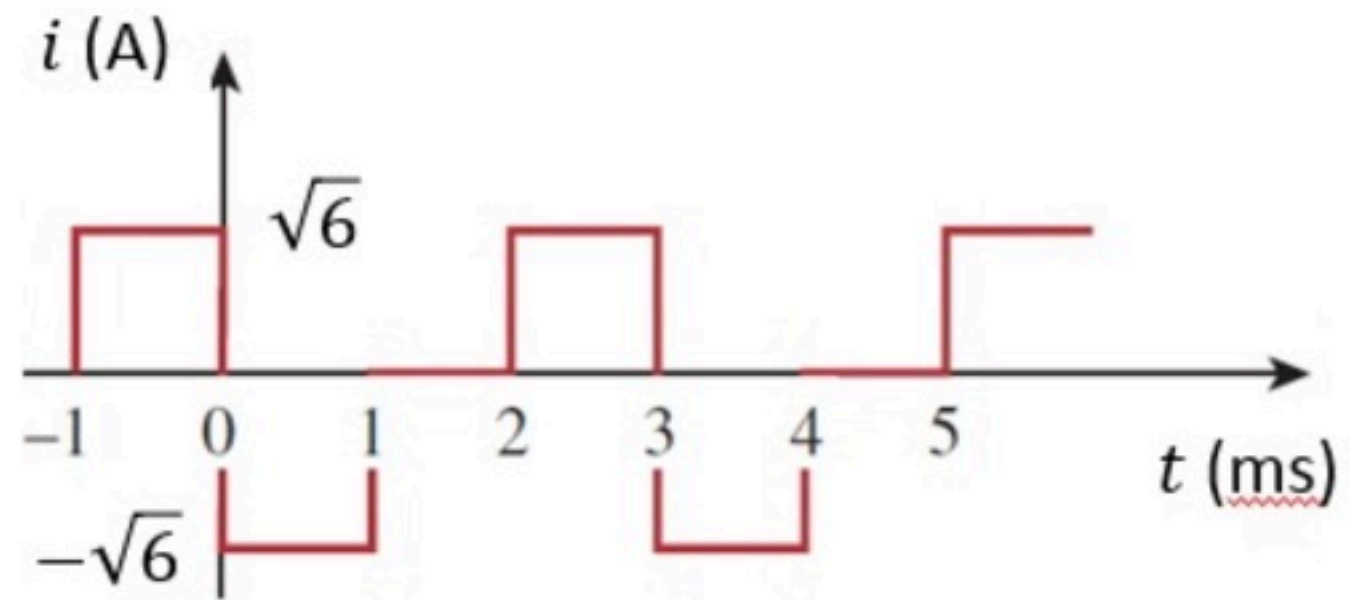


PP AC power 003

Unlimited Attempts.

Find I_{rms} for this waveform.



Given Variables:

...

Calculate the following:

I_{rms} (A) :

2



Hint: Square the waveform first.

$$A = \frac{1}{T} \int_0^T i^2 dt$$

$$= \frac{1}{3 \cdot 10^{-3}} \cdot \left[(-\sqrt{6})^2 \cdot 10^{-3} + 0 + (\sqrt{6})^2 \cdot 10^{-3} \right]$$

$$= \frac{1}{3} [6 + 6]$$

$$= 4$$

$$I_{rms} = \sqrt{A} \quad \Rightarrow \quad \boxed{I_{rms} = 2}$$