Ch 22 HW Quiz #2B

A 75 turn circular loop with a radius of 5.4 cm is initially oriented so that an external 3.3 T magnetic field is parallel to the plane of the loop as shown. The loop rotates 90 degrees in 0.23 seconds with the left half of the loop coming out of the page as shown.

a) Find the magnitude of the average induced EMF in the loop during the 0.23 second time interval.
b) If the loop continues to rotate at this rate over a long time, what will be the rms value of the induced voltage?