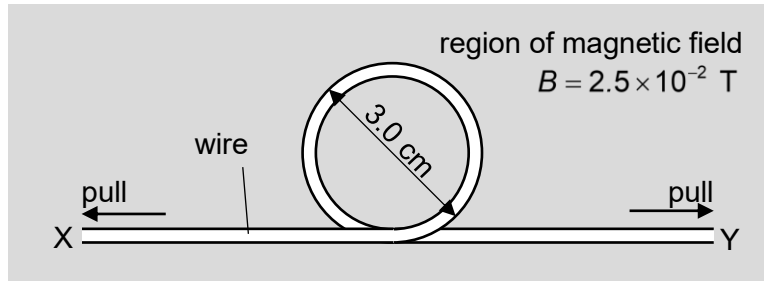


- 26** A circular, unknotted wire loop of diameter 3.0 cm is formed using insulated wire. The resistance of the wire loop is $5.0\ \Omega$. The loop is placed entirely in a region of uniform magnetic field of magnetic flux density $2.5 \times 10^{-2}\ \text{T}$ directed into the plane of paper, as shown.



The wire is quickly pulled taut and the loop is straightened in a time of 0.050 s. An e.m.f. is produced between ends X and Y of the wire as a result.

Which of the following options correctly identifies the point of higher potential and the power generated in the wire loop?

higher potential

power

A

X

$2.5 \times 10^{-8} \text{ W}$

B

X

$3.5 \times 10^{-5} \text{ W}$

C

Y

$2.5 \times 10^{-8} \text{ W}$

D

Y

$3.5 \times 10^{-5} \text{ W}$