

Warm-up question 1

Which formulas are valid to calculate the kinetic energy of an electron traveling with momentum $p = 1 \text{ GeV}$? (more than 1 possible)

A) $E_{kin} = p$

B) $E_{kin} = \frac{p^2}{2m}$

C) $E_{kin} = \sqrt{m^2 + p^2} - m$

D) None of them

Warm-up question 2

Charged particles are moving in a magnetic field.
Which statement is correct?

- A) Particles with different mass have the same bending radius as long as their charge and momentum are the same.
- B) All particles with the same velocity and charge have the same bending radius.
- C) Particles with the same momentum but different mass reach the end at different times.

