

**20** The equation for kinetic energy  $E_K$  can be derived using the equations of motion.

Four equations relating to motion are listed.

1  $W = Fs$

2  $F = ma$

3  $v^2 = u^2 + 2as$

4  $P = \frac{W}{t}$

Which three equations can be used to derive the equation for  $E_K$ ?

**A** 1, 2 and 3

**B** 1, 2 and 4

**C** 1, 3 and 4

**D** 2, 3 and 4