

- 3** An arrow flies through the air and arrives with kinetic energy  $E$  at a target. The arrow is stopped in a time  $t$  by an average force  $F$ .

The process is repeated for the same arrow with different values of  $E$ .

What is the relationship between  $E$ ,  $F$  and  $t$ ?

**A**  $Ft \propto \sqrt{E}$

**B**  $Ft \propto E$

**C**  $Ft \propto \frac{1}{\sqrt{E}}$

**D**  $Ft \propto \frac{1}{E}$

