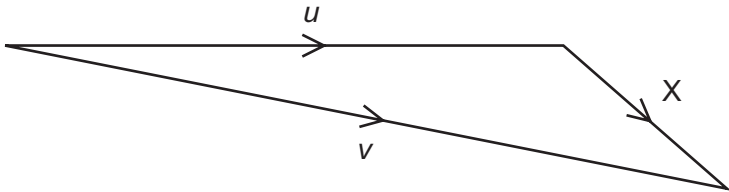


- 7 An object has an initial velocity  $u$ . It is subjected to a constant force  $F$  for  $t$  seconds, causing a constant acceleration  $a$ . The force is **not** in the same direction as the initial velocity.

A vector diagram is drawn to find the final velocity  $v$ .



What is the length of side  $X$  of the vector diagram?

**A**  $F$

**B**  $Ft$

**C**  $at$

**D**  $u + at$