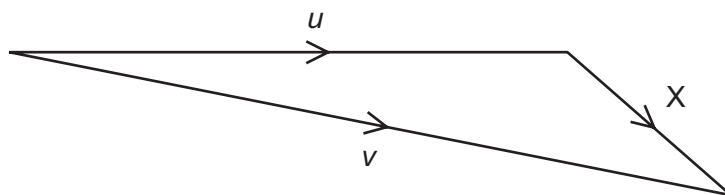


- 6 What gives the value of a body's acceleration?
- A the area under its displacement-time graph
  - B the area under its velocity-time graph
  - C the gradient of its displacement-time graph
  - D the gradient of its velocity-time graph
- 7 An object has an initial velocity  $u$ . It is subjected to 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  $u + at$
- 8 A stone is dropped from the top of a tower of height 40 m. The stone falls from rest and air resistance is negligible.
- What time is taken for the stone to fall the last 10 m to the ground?
- A 0.38 s                      B 1.4 s                      C 2.5 s                      D 2.9 s
- 9 What is meant by the weight of an object?
- A the gravitational field acting on the object
  - B the gravitational force acting on the object
  - C the mass of the object multiplied by gravity
  - D the object's mass multiplied by its acceleration