

6 An aircraft on a runway accelerates uniformly from rest to its take-off speed of 58 m s^{-1} .

The acceleration of the aircraft is 4.2 m s^{-2} , and the aircraft uses 74% of the length of the runway to reach its take-off speed.

What is the length of the runway?

A 300 m

B 540 m

C 590 m

D 800 m