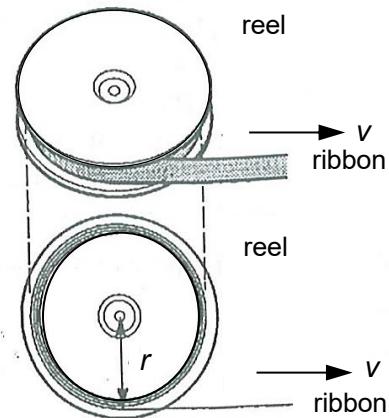


8

A ribbon, wound around a reel, is pulled and rotates about its centre. The ribbon leaves the reel at a constant v and at a variable distance r from the centre of the reel as shown.



What is the relationship between the angular velocity of the reel and the variable distance r from the centre of the reel?

A

Angular velocity is proportional to $\frac{1}{r^2}$.

B

Angular velocity is proportional to $\frac{1}{r}$.

C

Angular velocity is proportional to r .

D

Angular velocity does not depend on r .