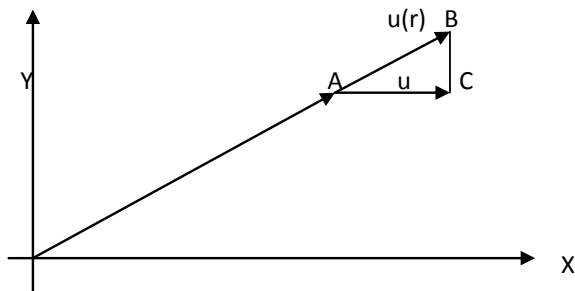


A particle is moving along a straight line parallel to the x axis at a distance 'd' away from it. It moves with a constant velocity 'u'. At a point (x,d) what is the velocity along \hat{r} ?

1. $uy / (x^2 + y^2)^{0.5}$
2. u
3. ux/y
4. $ux / (x^2 + y^2)^{0.5}$

Answer:



From triangle ABC $u(r) = u \frac{x}{\sqrt{x^2 + y^2}}$

Answer: "4"