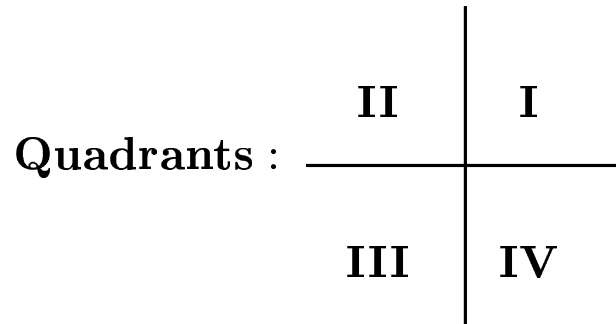
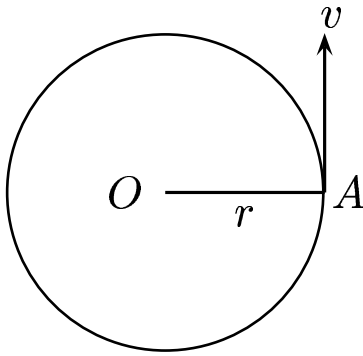


A train is moving along a circular track with  $r = 100$  m.

At  $A$ ,  $v = \|\vec{v}\| = 10$  m/s. It is slowing down with a tangential deceleration of magnitude  $a_{\text{tangent}} = |a_{\text{tangent}}| = 1$  m/s<sup>2</sup>. Sketch  $a_{\text{total}}$  at  $A$ .



Which quadrant should it be in?

- A) I
- B) II
- C) III
- D) IV

From the sketch at  $A$ ,  $a_{total}$  is in the  $3^{rd}$  quadrant.

Answer **C**.

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