



A rod is held in equilibrium by roller supports at A and B . If a force P was exerted onto the bar from different angles and at various sections of the bar (besides what is shown in the image), which of the following components of reaction on A and B would change to maintain equilibrium. Let the x - axis be the horizontal axis and the y - axis be the vertical axis.

$A_x \leftarrow$

A_y

$M_A \leftarrow$

B_x

$B_y \leftarrow$

M_B

How many unknown variable components need to be solved for, given a constant value P ?

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Which of the following equations can be used to solve for the unknown variable reaction components? Assume that O is the spot on the bar that the force P acts on.

$\Sigma F_x = 0 \leftarrow$

$$\Sigma F_y = 0 \leftarrow$$

$$\Sigma F_z = 0$$

$$\Sigma M_A = 0 \leftarrow$$

$$\Sigma M_B = 0 \leftarrow$$

$$\Sigma M_O = 0 \leftarrow$$