

Mathematics Questions by Topics

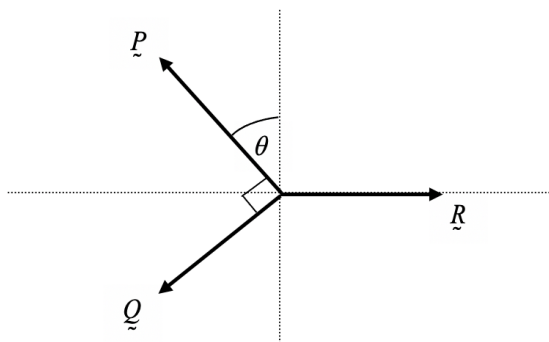
Motion and Force

Question 47

Source: K7SM2Q18

Question 47

The following diagram shows a particle in equilibrium under the action of three concurrent coplanar forces \vec{P} , \vec{Q} and \vec{R} . The forces \vec{P} , \vec{Q} and \vec{R} have magnitudes of P , Q and R respectively. Which one of the following statements is **not** correct?



- A. $P \operatorname{cosec}(\theta) = Q \sec(\theta)$
- B. $R^2 = P^2 + Q^2$
- C. $R = P \sin(\theta) + Q \cos(\theta)$
- D. $\cot(\theta) = \frac{P}{Q}$
- E. $\vec{P} + \vec{Q} + \vec{R} = \vec{0}$