

Mathematics Questions by Topics

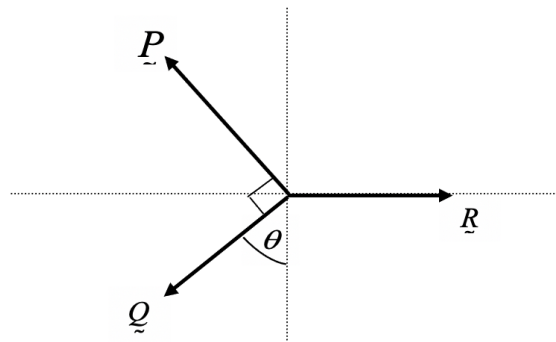
Motion and Force

Question 5

Source: K20SM2Q10

Question 5

The following diagram shows a particle in equilibrium under the action of three concurrent coplanar forces \underline{P} , \underline{Q} and \underline{R} . The forces, \underline{P} , \underline{Q} and \underline{R} have magnitudes of P , Q and R respectively.



Which one of the following statements is **not** correct?

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