

Answer on Question #38666, Physics, Other

Question:

What is the value of θ and $\cos \theta$ when the force and the displacement is perpendicular to each other?

Answer:

The word perpendicular describes the relationship between two vectors which intersect at a right angle. Therefore:

$$\theta = 90^\circ$$

And $\cos(90^\circ)$ equals 0:

$$\cos \theta = \cos(90^\circ) = 0$$

Answer: $\theta = 90^\circ, \cos \theta = 0$