Answer on Question #83111 – Math – Analytic Geometry

Question

If a vector X is represented as $[xsin\theta i + ysin\theta j]$ then another vector Y which is normal to X can be represented as

Solution

Normal vector: Y = [i, kj]. $X \cdot Y = 0 \rightarrow x \sin\theta + ky \sin\theta = 0 \rightarrow k = -\frac{x}{y}$. $Y = \left[1, -\frac{x}{y}\right]$. Answer: $Y = \left[1, -\frac{x}{y}\right]$.

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