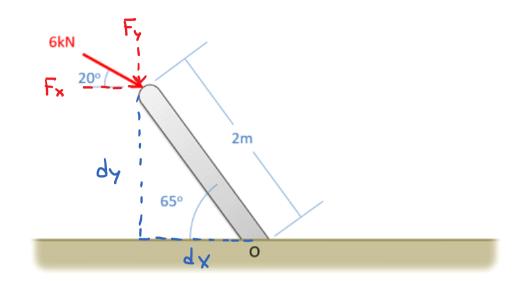
## Question 3

Use Varignon's Theorem to determine the moment that the force shown below exerts about the base of the post at point O.



$$M_{o} = -(F_{x})(d_{y}) + (F_{y})(d_{x})$$

$$M_{o} = -(6c_{os}(20))(2sin(15)) + (6sin(20))(2cos(15))$$

$$M_{o} = -8.49 \text{ kN} \text{ m}$$