Task 03 - Vectors Notes

📅 Date	@February 20, 2025
📅 Due Date	@February 20, 2025
⚙ Status	Done
⊙ Type	Pre Class

Question no. 01

1.2

Rx (→) = 5 cos 45 = 3.54 m To The Right

Ry (→) = 5 sin 45 = 3.54 m To The Top

1.3

R (→) = 3.54 i + 3.54 j

Question no. 02

2.1

The single vector that has The same effect as both vectors applying simultaneously.

2.2.1

Fx (→) = 8 cos 60 = 4 N To The Right

Fy (→) = 8 sin 60 = 4 x Square Root Of (3) N To The Bottom

F net x (→) = 4 - 6 = -2 N To The Left

2.2.2

F net (→) = Square Root Of ((-2 ^ 2) + (-4 x Square Root Of (3)) ^ 2) = 2 x Square Root Of (13) N To The Bottom

Tan Theta = ((-4 x Square Root Of (3)) / - 2) = 73.897 Degrees

2.3

F net x = 13 N (Up) while *F net y = 4 N*

F net (→) = Square Root Of (13 ^ 2 + 4 ^ 2) = 13.6 N (Down)

Theta = 4 / 13 = 17.1027 Degrees

With Love, Shawqi.