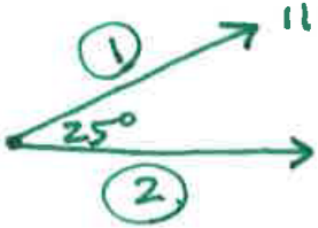
b) What is the magnitude and direction of the resultant of a 105-Newton force along the positive x-axis and a 110-Newton force at an angle of 25°?



110N ----→ Force ① : $110N\langle \cos 25°, \sin 25° \rangle = \langle 99.7, 46.5 \rangle$

105N ----→ Force ② : $105N\langle \cos 0°, \sin 0° \rangle = \langle 105, 0 \rangle$

$\langle 204.7, 46.5 \rangle$

Magnitude:

$\sqrt{204.7^2 + 46.5^2} = \boxed{209.9N}$

Direction:

$\tan^{-1}\left(\frac{46.5}{204.7}\right) = \boxed{12.8°}$