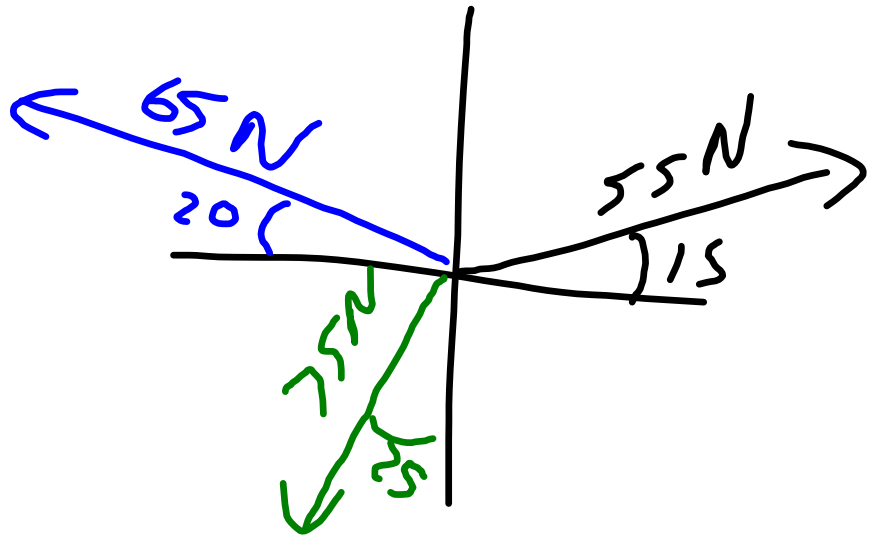
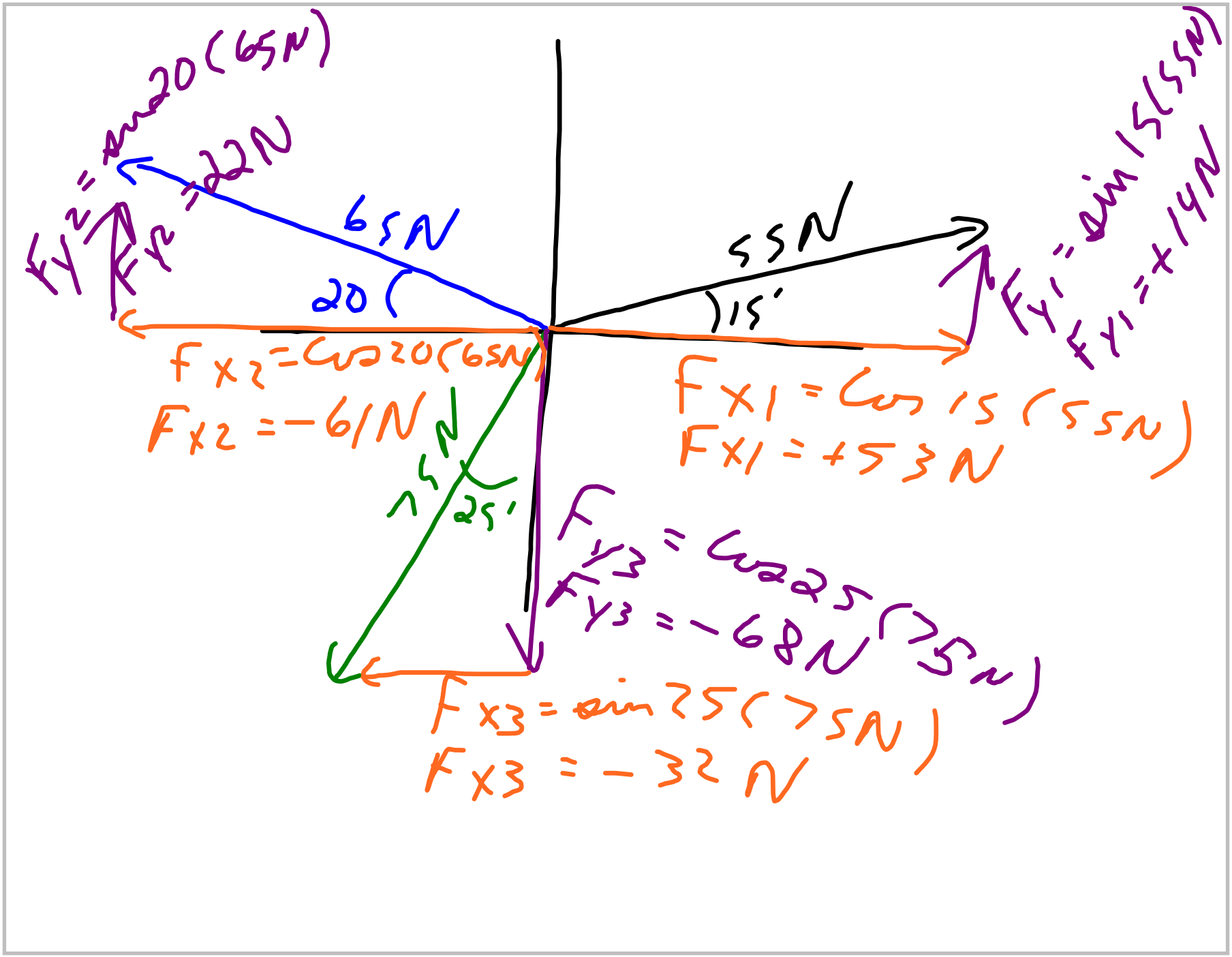
$F_1 = 55N$ at $15°$

$F_2 = 65N$ at $160°$

$F_3 = 75N$ at $245°$

$R = ?$





Title: Oct 3 - 10:29 AM (2 of 3)

$\Sigma F_x: F_{x1} = +53N$

$F_{x2} = -61N$

$F_{x3} = -32N$

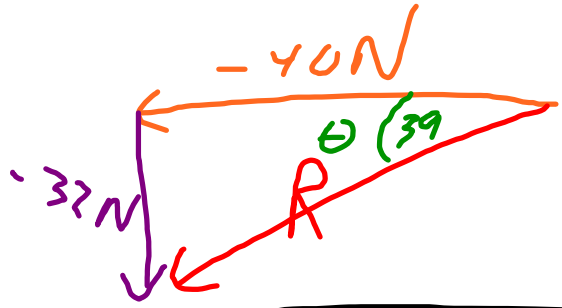
$\Sigma F_x = -40N$

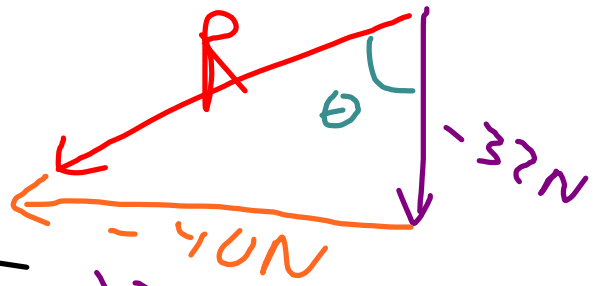
$\Sigma F_y: F_{y1} = +14N$

$F_{y2} = +22N$

$F_{y3} = -68N$

$\Sigma F_y = -32N$





$R = \sqrt{(-40N)^2 + (-32N)^2}$

$R = 51N$ at $219°$

$\tan\theta = \frac{32N}{40N} = 39°$

$180 + 39 = 219°$

$\tan\theta = \frac{40N}{32N}$

$\theta = 51°$

$270 - 51 = 219°$