Damietta university
Faculty of engineering
Mechanics sheets

FACULTY OF ENGINEERING
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Final answer of sheet No (1)

Prob No	Answer
Problem 1	$F_R = 393$ lb & $\phi = 353°$
Problem 2	$F_R = 497$ N & $\phi = 155°$
Problem 3	$F = 960$ N & $\phi = 45.2°$
Problem 4	$F_R = 605$ N & $\phi = 85.4°$
Problem 5	$F_{1u} = 205$ N & $F_{1v} = 160$ N
Problem 6	$F_{2u} = 376$ N & $F_{2v} = 482$ N
Problem 7	$F_{AB} = 448$ N & $F_{AC} = 366$ N
Problem 8	$F_{1v} = 129$ N & $F_{1u} = 183$ N
Problem 9	$F_a = 30.6$ lb & $F_b = 26.9$ lb
Problem 10	$F = 19.6$ lb & $F_b = 26.4$ lb
Problem 11	$F_R = 10.8$ kN & $\phi = 3.16°$
Problem 12	$\theta = 54.9°$ & $F_R = 10.4$ kN
Problem 13	$\theta = 53.5°$ & $F_{AB} = 621$ lb
Problem 14	$\phi = 38.3°$
Problem 15	$F' = 30.85$ N & $\theta' = 1.47°$ & $F_R = 19.2$ N $\theta = 2.37°$ clockwise from the positive x axis.
Problem 16	$F' = 47.07$ N & $\theta' = 23.53°$ & $F_R = 19.2$ N $\theta = 2.37°$ clockwise from the positive x axis.
Problem 17	$\theta = 36.9°$ & $F_R = 920$ N
Problem 18	$\theta = 18.6°$ & $F = 319$ N
Problem 19	$F_{1x} = 491$ N & $F_{1y} = 344$ N & $F_{2x} = -400$ N & $F_{2y} = 300$ N $F_{3x} = 358$ N & F3y = - 716 N
Problem 20	$R = 525$ lb & $\theta = 49°$