

Data Table

Trial	Measured Quantities			Calculated Resultant		Measured Equilibrant		Percent Error or Difference	
	F ₁	F ₂	θ ₁₃	R ₁₂	θ _{1R}	F ₃	θ ₁₃	Magnitude	Angle
	N	N	deg.	N	deg.	N	deg.	%	%
I	11.5N	15N	115°	15.4N	69°	14.5	115°	6.02%	2.22%
II	14N	15N	125°	17.2N	35°	15N	125°	13.6%	-11.1%
III	15N	15N	130°	15N	65.5°	16N	130°	60.25%	19450%

Step:

$$\text{Percent Difference in Magnitude} = \left| \frac{F_3 - R_{12}}{F_3 + R_{12}} \times 200 \right|$$

$$\text{Percent Error in Angle} = \frac{\theta_{1R} + \theta_{13} - 180^\circ}{180^\circ} \times 100$$

