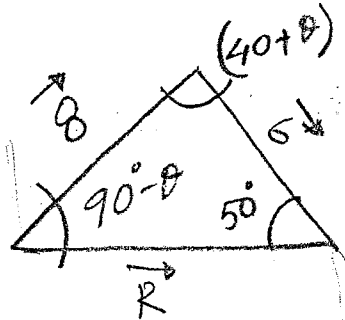
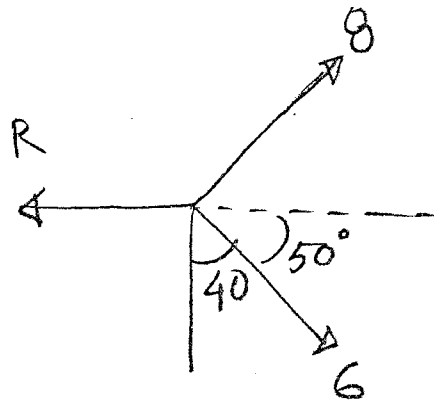
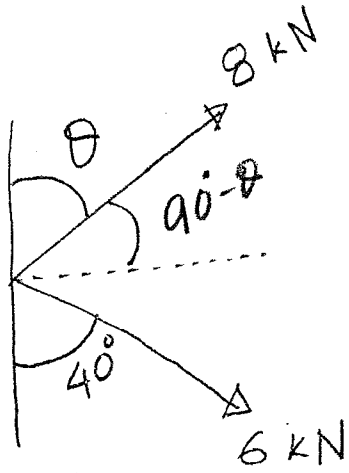


2.8



Here  $\frac{8}{\sin 50} = \frac{6}{\sin (90-\theta)}$

$\Rightarrow \sin (90-\theta) = \frac{6 \times \sin 50}{8} = .574$

$\therefore 90-\theta = \sin^{-1} (.574) = 35$

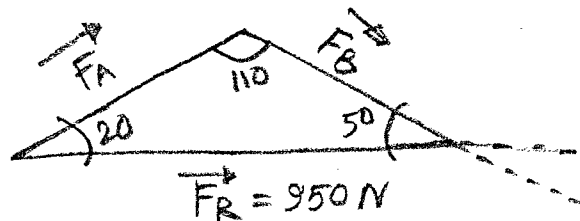
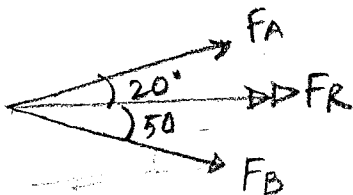
$\therefore \theta = \underline{54.93^\circ}$

$40 + \theta = 40 + 54.93 = 94.93$

$\therefore \frac{R}{\sin 94.93} = \frac{8}{\sin 50}$

$\Rightarrow R = \underline{10.4}$

2.2



Here  $\frac{950}{\sin 110} = \frac{F_A}{\sin 50}$

$\Rightarrow F_A = \underline{774.45 \text{ N}}$

And  $\frac{950}{\sin 110} = \frac{F_B}{\sin 20} \Rightarrow F_B = \underline{345.77 \text{ N}}$