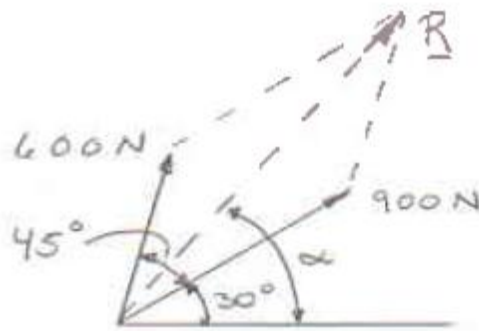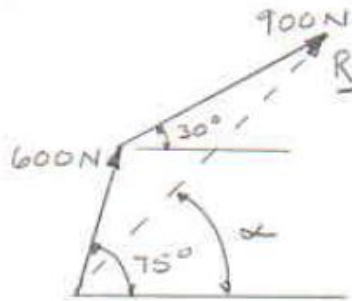**PROBLEM 2.1**

Two forces are applied as shown to a hook. Determine graphically the magnitude and direction of their resultant using (*a*) the parallelogram law, (*b*) the triangle rule.

SOLUTION

(*a*) Parallelogram law:

(*b*) Triangle rule:

We measure: $R = 1391$ kN, $\alpha = 47.8°$ $\mathbf{R} = 1391$ N ⦨ 47.8° ◀