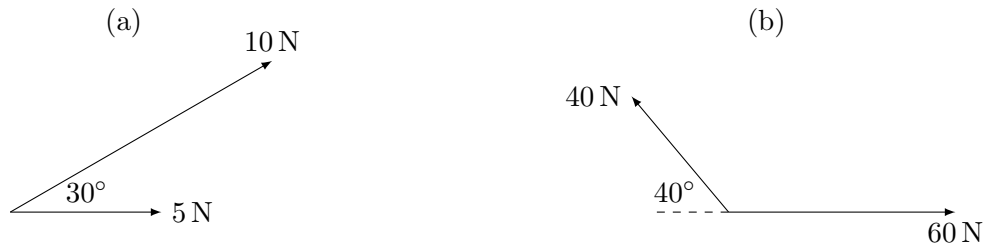# Resultants III

A.C. NORMAN
anorman@bishopheber.cheshire.sch.uk

Use $g = 10 \, \text{N} \, \text{kg}^{-1}$ where necessary.

1. Find the resultants of the following pairs of forces

(a)

(b)

2. A body of mass $3.0 \, \text{kg}$ is placed on a smooth plane inclined at $20°$ to the horizontal. A force of

   (a) $5.0 \, \text{N}$
   (b) $20 \, \text{N}$

   is applied to the body up the slope, and parallel to the plane. In each case, calculate the net force on the body.

3. Three tugs, A, B and C pull a floating oil platform, as shown in the diagram. Calculate the resultant force.
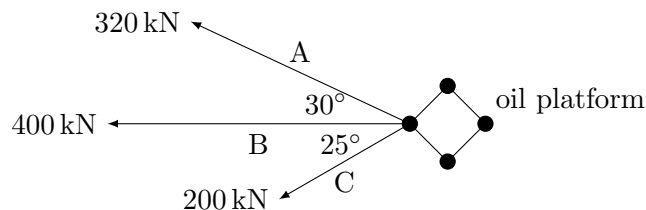
4. A car is stuck in sand. Five helpers push with the forces indicated, in newtons. Calculate the resultant force on the car, and its direction.