



KEC

K Education Centre



GCSE Physics Forces P8

Forces in Balance – Assignment 2

Assignment Questions

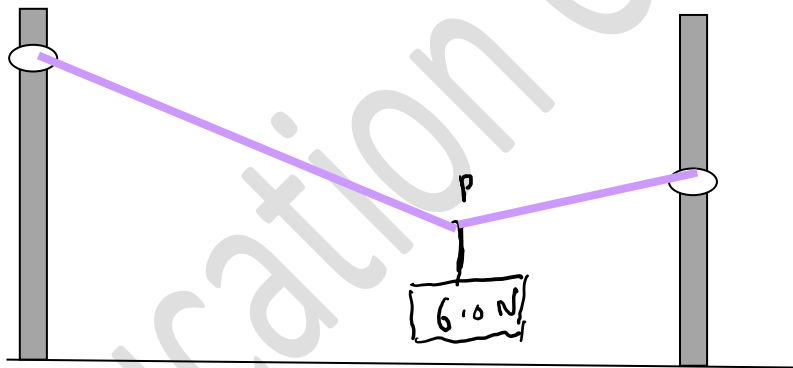
©KEducationCentre
Year 2022

P8: Forces in Balance

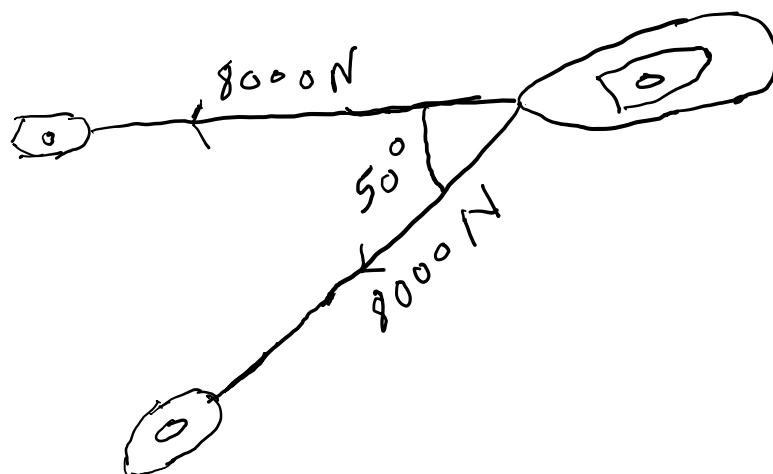
Q1: A tow rope is attached to a car. At two points 1 m apart. The two sections of rope joined to the car of the same length and are at 40° to each other. The pull on each attachment should not exceed 5000 N. Draw the free body diagram and use the parallelogram law of vector addition.

Q2: A force of 5.0 N and a force of 6.0 N act on a point. Determine the magnitude and direction of the resultant force if the angle between their line of action is 60° .

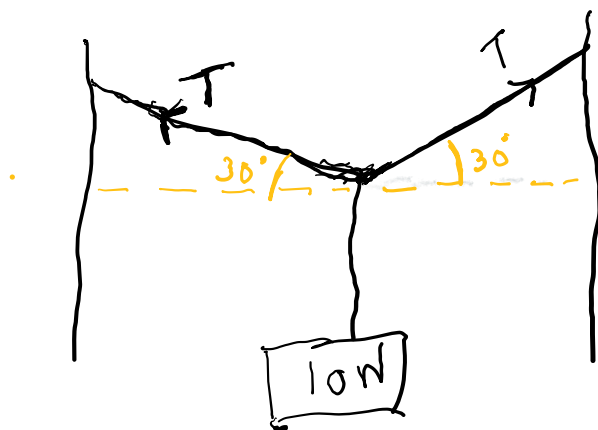
Q3: In a model zip like shown in figure, two sections of string are both at angle of 40° to horizontal line through a lowest point P of the string. Find the tension in each section of the string.



Q4: Two tugboats are used to pull a ship as shown in figure. Find the magnitude of the resultant of the tugboat forces on the ship.



Q5: Find the tension of string in the following diagram



Q6: Find the weight W of the beam

