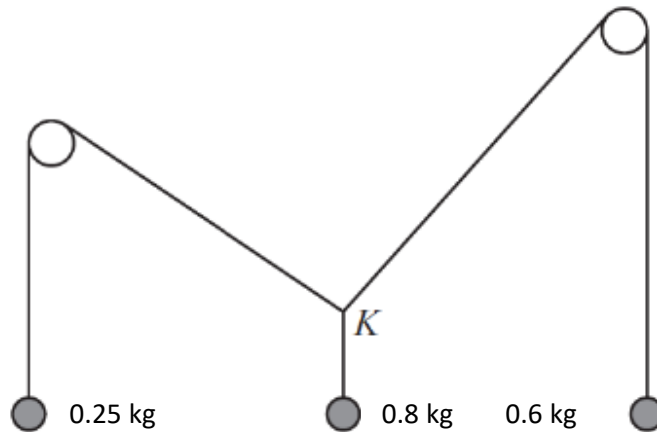


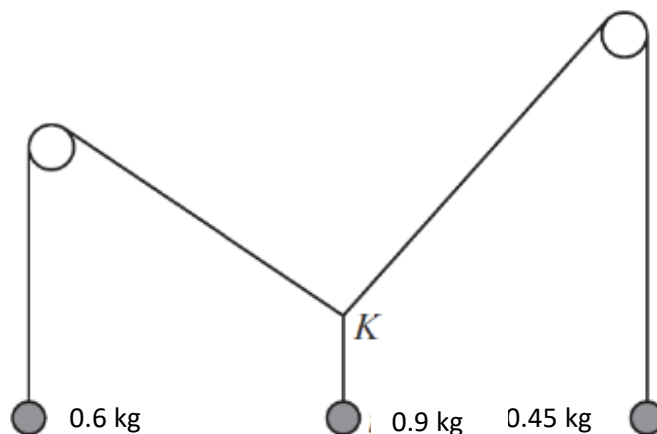
Summer Assignment Test 4 Version O

The diagram shows three strings, which are tied in a knot, K . Two of the strings pass over smooth pulleys and have particles of mass 0.25 kg and 0.6 kg attached to them at the ends opposite to K . The other string has a particle of mass 0.8 kg attached to it at the end opposite to K . The system is at rest. Find the angle made by the sloping part of each string with the upward vertical.



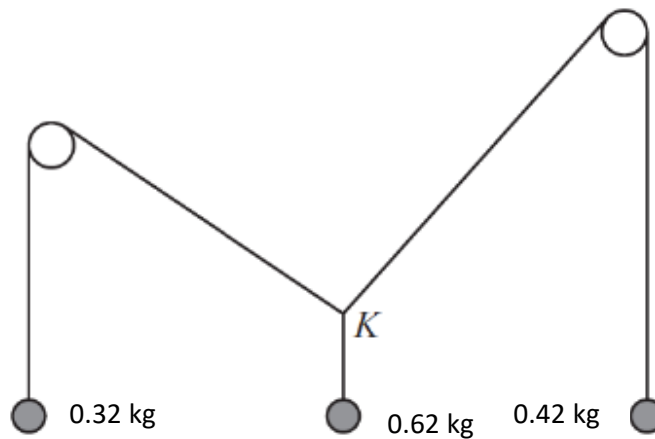
Summer Assignment Test 4 Version P

The diagram shows three strings, which are tied in a knot, K . Two of the strings pass over smooth pulleys and have particles of mass 0.6 kg and 0.45 kg attached to them at the ends opposite to K . The other string has a particle of mass 0.9 kg attached to it at the end opposite to K . The system is at rest. Find the angle made by the sloping part of each string with the upward vertical.



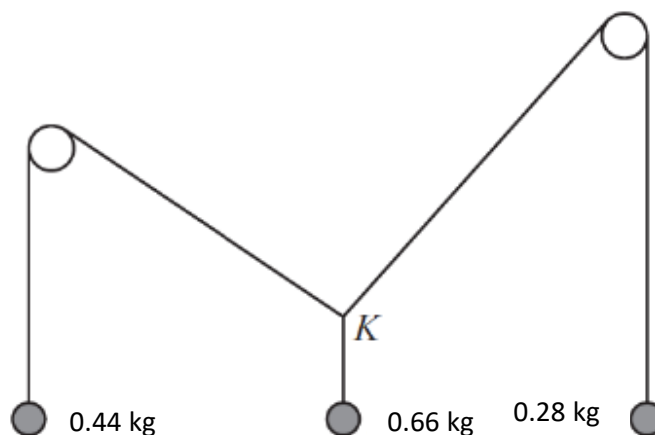
Summer Assignment Test 4 Version Q

The diagram shows three strings, which are tied in a knot, K . Two of the strings pass over smooth pulleys and have particles of mass 0.32 kg and 0.42 kg attached to them at the ends opposite to K . The other string has a particle of mass 0.62 kg attached to it at the end opposite to K . The system is at rest. Find the angle made by the sloping part of each string with the upward vertical.



Summer Assignment Test 4 Version R

The diagram shows three strings, which are tied in a knot, K . Two of the strings pass over smooth pulleys and have particles of mass 0.44 kg and 0.28 kg attached to them at the ends opposite to K . The other string has a particle of mass 0.66 kg attached to it at the end opposite to K . The system is at rest. Find the angle made by the sloping part of each string with the upward vertical.



Answers

O: 12.4, 31.1

P 36.3, 26.3

Q 28.3, 38.5

R: 29.9, 18.5