

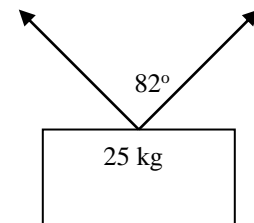
Force-Vector Review

Physics

Chpt 6 rev 4

1. What is resulting velocity of a boat that can travel at 4.50 m/s in still water if it heads directly across stream and the current is 2.60 m/s
2. What acceleration does a 79 N force give a lawnmower if it the mass of the mower is 15.4 kg and μ is 0.10 and the 79 N force is directed down the handle at 44° ?
3. A 24 kg box is pulled across a horizontal surface at a constant speed by a force of 89 N acting 37° above the horizontal. What is μ ?
4. What would the boxes (from #3) acceleration be if μ was 0.17?
5. What is the equilibrant force of 45 N acting due N and 55 n acting due E?

6. What force does each wire have applied to it?



7. What force is needed to accelerate a 12 kg box up a 23° ramp if μ is 0.44? (force will be $>$ )
8. What is the acceleration of a 12 kg box on a 23° ramp if μ is 0.44 and a force of 55 N is applied down the ramp?