**PHYSICS 11**

**NORMAL FORCE**

(Practice Questions)

1. Determine the magnitude and direction of the normal force acting on a 15.0 kg object that rests on a horizontal frictionless surface while being acted upon by a force of push 45 N downwards. Include a labeled situation diagram.
2. Determine the normal force experienced by a 2.0 kg object that is being pulled upwards with force of 12.6 N while moving along a leveled surface at constant speed.
3. Determine the normal force experienced by 10.0 kg object that is being pulled upwards with force 120 N while sliding along a horizontal surface.
4. What is the acceleration of the object in question 3?
5. Determine the normal force experienced by a 10.0 kg object that is being pulled with force of 120 N 50 above horizontal while sliding along a horizontal surface.
6. What is the normal force experienced by an 8.5 kg object resting on a leveled surface with a coefficient of friction of 0.068 and acted upon by a force of tension of 45 N Up 10 Right?
7. What will be the normal force experienced by an 18 kg crate that is being pushed up an inclined plane with an angle of inclination of 32?
8. The pushing force of 230 N is parallel with the inclined plane.
9. The pushing force of 230 N is up the inclined plane at an angle of 20 above the incline’s surface.
10. Will a 5.6 kg object experience a normal force when it is placed on a horizontal surface? If yes, find the magnitude of the normal force. If not, explain why and justify your answer.
11. While being pulled with **F1**= 25 N [R40U]?
12. While being pulled with **F2**= 13 N [L 60?
13. While being pulled with **F1**and **F2** simultaneously?
14. What magnitude of **F1** would lift the object if the second force remained the same and the direction of **F1** was also the same? Justify your answer.