

Physics Homework

Name _____

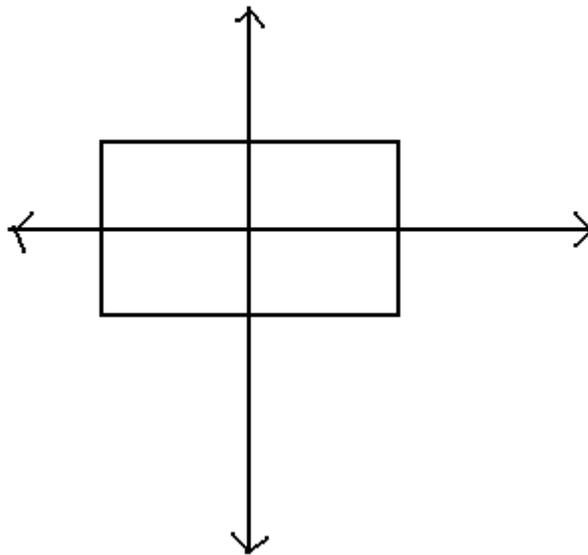
Date _____ Period _____

**Show PAWS**

- 1) Draw a free body diagram for each of the following situations.
- A book sitting on a table.
 - A ball hanging from a string.
 - A block of wood sitting on an inclined plane.
 - A helicopter accelerating straight up.

2. Find the vector sum of all the forces acting on the block.

$$F_{\text{up}} = 25\text{N} \quad F_{\text{down}} = 40\text{N} \quad F_{\text{right}} = 38\text{N} \quad F_{\text{left}} = 21\text{N}$$



3) A car has a mass of 2300Kg. Find the acceleration of this car when it pushed with a force of 670N.

4) What force must be used to accelerate a 3.5kg cart at 4.5m/s^2 ?

5) A 25g bullet is pushed with a force of 5500N. Find the velocity of the bullet if the force is exerted for time of 0.0034s.