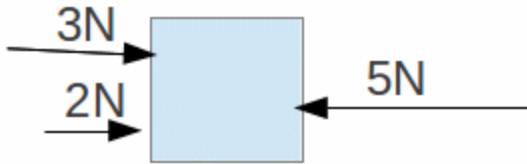


Semester Exam Review (part 2)

1. What will happen to the objects after the forces below are applied?

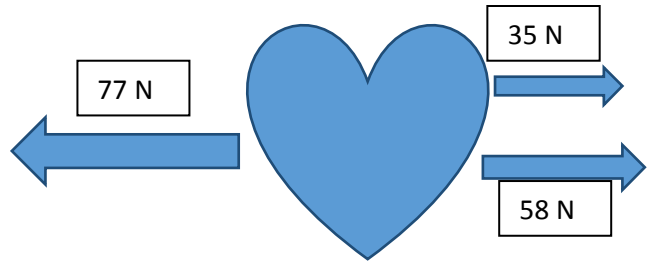


- a. Zambrano driving this truck, Balanced or unbalanced?
- b. In which direction will it move?
- c. What will be the net force?



- a. Balanced or unbalanced?
- b. In which direction will the object move?
- c. What will be the net force?

- a) Ortiz pushing a heart, Balanced or unbalanced?
- b) In which direction will the object move?
- c) What will be the net force?



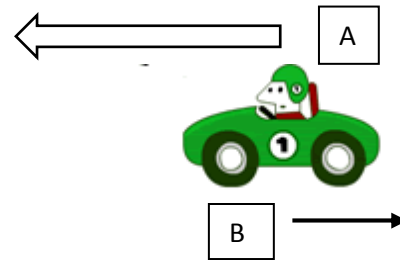
2. Define the following vocabularies and provide one example for each definition

Definition	Example
<u>Speed</u> -	
<u>Velocity</u> -	
<u>Acceleration</u> -	

3. Which person is the fastest?

Person	Distance	Time	Speed
Gilbert dribbling the ball faster than Ronaldo	36 m	0.6 sec	
My grandma running a Marathon	96 m	0.8 sec	
Drama queen falling at the end of the race	660 m	30 sec	

4. Label and explain the following diagram

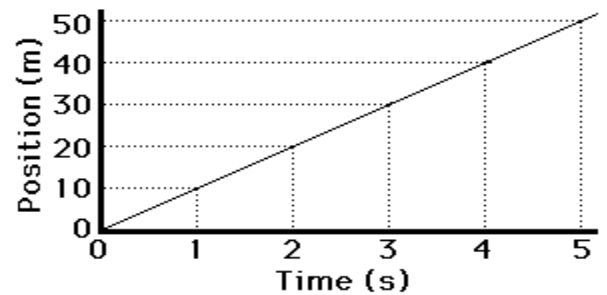


- a) Balanced or unbalanced?
- b) What is causing force "A" ?
- c) What is creating force "B" ?
- d) In which direction will the car move?

5. The 1st Isaac Newton's Law of motion states that..

6. What is the nickname of the first law of motion?

7. Describe the speed of the object displayed in the following distance over time graph



8. What will be the speed of the object at 3 seconds? (use the speed formula using the 3 steps)

9. What will be the average speed of the object? (use the speed formula using the 3 steps)

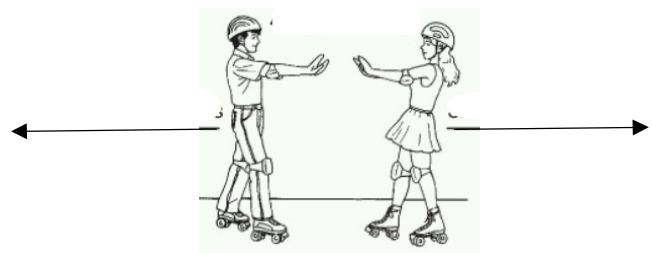
10. The total force of the car movement is different from the forces being added. What is affecting the total force?



11. Draw an arrow representing the forces affecting the movement of the car (with proper amounts of Newtons). The arrow should have proper direction

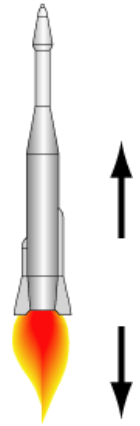
12. Two skaters pushing will cause them to move away from each other. What law of motion is this example related to?

13. What is the nickname of this Law?

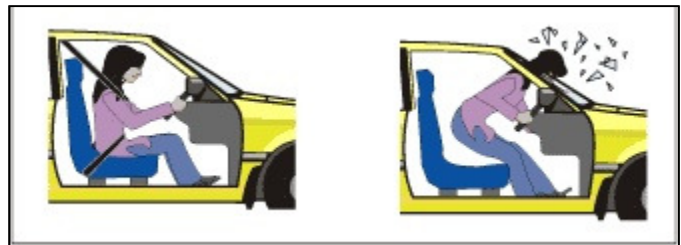


14. Explain the different laws of motion involved in this pictures

- a) 1st law (law of inertia)
- b) 2nd law (law of force, mass, and acceleration)
- c) 3rd law (law of action and reaction)



15. Describe what is happening to the motion of the objects (the car and the person) in these two pictures



What is the nick name of this law?

16. Will the wall move after all the forces applied by the boy?

17. Is this an example of balanced or unbalanced forces?

18. If the boy is pushing with 300 N of force, with what amount of force is the wall pushing back?

19. Draw the arrows at the bottom of the picture showing the forces (and amounts) involved.

