

Name: \_\_\_\_\_

Physics 11

### Lesson 2.2 – Newton's Second Law

Newton's **first** law told us that if no net force acts on an object, its acceleration is \_\_\_\_\_.

So, it's fair to assume that if there *is* a net force (a.k.a. unbalanced force, resultant force), then the acceleration will be \_\_\_\_\_.

Newton's **second** law tells us how to calculate that acceleration:



### Newton's Second Law

Take a look at the units on both sides...

**Example:** A 650 kg car accelerates at  $4 \text{ m/s}^2$  south. What is the net force acting on it?

**Example:** Determine the magnitude and direction of the net force on the object below.

