

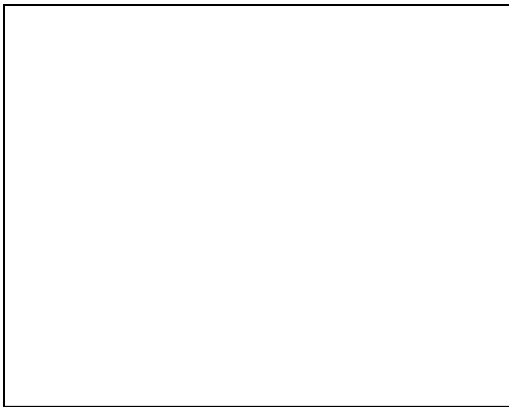
## Balanced Forces – Guided Notes

If the forces on an object are balanced (meaning there is no acceleration -- a constant velocity), we can write a balanced forces equation.

### **Tug of War Equation**



### **Car Force Diagram**



### **Car Equations**

Vertical:

Horizontal:

### **Pulled Cart Force Diagram**



### **Cart Equations**

X-Component of Pulling Equation:

Y-Component of Pulling Equation:

X-Direction Equation:

Y-Direction Equation: