NEWTON'S 2nd LAW WS 3

Name _____

1. How much net force is needed to accelerate a 15kg mass at 2.8 m/s²?

2. Delon's car is dead. He is pushing it to the east out of the parking lot with a force of 250N. carter, being a good friend, comes to help and also pushes east with a force of 75N. If Delon's car has a mass of 750kg, what is the car's acceleration?

3. Hunter is pulling on his little red wagon to the west with a force of 125N. Luke doesn't want him to take the wagon so he is pulling in the opposite direction with a force of 75N. If the wagon has a mass of 15kg, what is the wagon's acceleration?

4. A planes engine is pushing it north with a force of 1250N. The wind is blowing to the east with a force of 125N. If the plane is a 775kg mass, what is the *magnitude* of its acceleration?

5. A 50.0kg box is being pulled by two teams of people. Team Bonzo is pulling on the box with a force of 324N @ 40.0° N of E. Team Kong is pulling on the box with a force of 856N @ 20.0° W of N. What is the resultant acceleration of the box? (There are *NINE* calculations needed to get to the proper answer!)