

## **Homework Problem Set 4 – Due Thursday, 9/29**

### **Problem 1**

Hewitt 5.34, p.87

### **Problem 2**

Hewitt 5.42, p. 87

### **Problem 3**

Hewitt 5.50, p. 88

### **Problem 4**

Hewitt 5.54, p. 88

### **Problem 5**

I am trying to get my car moving by pushing it along a flat stretch of road. My friend claims that this will be impossible, since no matter how hard I push the car, the car will push back on me with the same force and hence the net force will be zero. Is he right?

### **Problem 6**

Hewitt 5.60, p. 88

### **Problem 7**

Which of the following has a larger momentum: A 1000 kg lightweight car going 30 m/s or a 6000 kg truck going 10 m/s? Calculate the momentum for both to explain your answer.