1. The energy required to slow and/or stop a vehicle depends on two major factors:

Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

Meets ASE Task: Not specified by ASE

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

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

**Brake System Principles**

Weight of the vehicle

Speed of the vehicle

2. Check service information and determine the weight of the vehicle.

Weight = \_\_\_\_\_\_\_\_\_\_\_

3. Add the number of possible passengers (one for each location equipped with seat belts times 150 pounds each):

Number of passengers = \_\_\_\_\_\_ × 150 pounds = \_\_\_\_\_\_\_\_\_\_\_\_\_

4. Add possible luggage or cargo (see tire pressure decal) weight:

Luggage or cargo = \_\_\_\_\_\_\_\_

5. Total vehicle weight = \_\_\_\_\_\_\_\_\_\_\_

6. Using the formula, determine the kinetic energy at the following speeds:

weight × speed2 = kinetic energy

29.9

30 mph = \_\_\_\_\_\_\_\_\_

60 mph = \_\_\_\_\_\_\_\_\_

