

WEIGHT & BALANCE

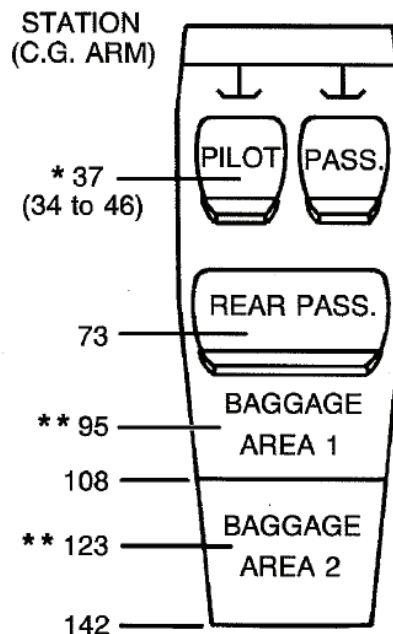
Name: _____

A student pilot and his instructor want to make a two-hour cross-country flight. The formal weight and balance information for the aircraft details an empty weight of 1,665.6 pounds and a moment of 65.93. The pilot and instructor weight 170 and 150 pounds, respectively. The plane also has 30 gallons of fuel on board, with additional materials weighing 30 pounds in baggage area 1.

Use the weight and balance chart and loading diagram below to calculate the total weight, moment, and center of gravity (CG) for the aircraft. Then plot the information on the safety envelope chart below to determine if the plane is safely balanced for flight.

Then, considering that the plane burns 7 gallons per hour, determining the new weight, moment, and center of gravity, charting the information on the safety envelope for the end of the flight.

WEIGHT & BALANCE			
	WEIGHT	X	ARM = MOMENT
BASIC EMPTY			
PILOT & F/S			
REAR SEAT			
BAGGAGE			
OIL (IF APPLICABLE)			
FUEL			
TOTALS		CG	



ADDITIONAL NOTES:

8 Quarts of Engine Oil Weighs 15 lbs with Moment of -0.2.

One Gallon of AVGAS Weighs 6 lbs.

