

**WEIGHT & BALANCE EXERCICES - 1**

<b>Exercice-1</b>	Weight (lbs)	Long. Arm (inch)	Moment	Lat. Arm (inch)	Moment
Pilot	107.00	114.80		28.00	
Co-Pilot	113.00	114.80		-28.00	
Pass. center	118.00	78.20		24.33	
Glow Box	8.00	82.40		8.67	
Main tank	38.00	127.30		-23.33	
Aux tank	25.00	15.20		-2.00	

Take-off weight					
		<b>C.G. Long.</b>		<b>C.G. Lat.</b>	

<b>Exercice-2</b>	Weight (lbs)	Long. Arm (inch)	Moment	Lat. Arm (inch)	Moment
Component-1		45.30	478.00		32.00
Component-2	9.00	82.50			9.00
Component-3	103.00		369.00	24.00	
Component-4	106.00		194.00	9.67	
Component-5		28.80	325.00		13.00
Component-6	17.00	90.20		-7.33	

Take-off weight					
		<b>C.G. Long.</b>		<b>C.G. Lat.</b>	

<b>Exercice-3</b>	Weight (lbs)	Long. Arm (inch)	Moment	Lat. Arm (inch)	Moment
Component-1	0.00				0.00
Component-2	42.00			0.00	
Component-3		43.10	351.00	0.00	
Component-4		95.80		7.00	0.00
Component-5	0.00	18.10			0.00
Component-6		64.40			11.36
Component-7		73.60	442.00	25.00	

Take-off weight	75.45		2052.92		
		<b>C.G. Long.</b>		<b>C.G. Lat.</b>	

**WEIGHT & BALANCE - 1 SOLUTIONS**

<b>Exercice-1</b>	Weight (lbs)	Long. Arm (inch)	Moment	Lat. Arm (inch)	Moment
Pilot	107.00	114.80	12283.60	8.67	2996.00
Co-Pilot	113.00	114.80	12972.40	5.67	-3164.00
Pass. center	118.00	78.20	9227.60	-15.67	2871.33
Glow Box	8.00	82.40	659.20	-21.67	69.33
Main tank	38.00	127.30	4837.40	-18.67	-886.67
Aux tank	25.00	15.20	380.00	-21.33	-50.00

Take-off weight	409.00	98.68	40360.20	4.49	1836.00
		<b>C.G. Long.</b>		<b>C.G. Lat.</b>	

<b>Exercice-2</b>	Weight (lbs)	Long. Arm (inch)	Moment	Lat. Arm (inch)	Moment
Component-1	10.55	45.30	478.00	3.03	32.00
Component-2	9.00	82.50	742.50	1.00	9.00
Component-3	103.00	3.58	369.00	24.00	2472.00
Component-4	106.00	1.83	194.00	9.67	1024.67
Component-5	11.28	28.80	325.00	1.15	13.00
Component-6	17.00	90.20	1533.40	-7.33	-124.67

Take-off weight	256.84	14.18	3641.90	13.34	3426.00
		<b>C.G. Long.</b>		<b>C.G. Lat.</b>	

<b>Exercice-3</b>	Weight (lbs)	Long. Arm (inch)	Moment	Lat. Arm (inch)	Moment
Component-1	0.00	0.00	0.00	0.00	0.00
Component-2	42.00	0.40	17.00	0.00	0.00
Component-3	8.14	43.10	351.00	0.00	0.00
Component-4	0.00	95.80	0.00	7.00	0.00
Component-5	0.00	18.10	0.00	0.00	0.00
Component-6	19.30	64.40	1242.92	0.59	11.36
Component-7	6.01	73.60	442.00	25.00	150.14

Take-off weight	75.45	27.21	2052.92	2.14	161.50
		<b>C.G. Long.</b>		<b>C.G. Lat.</b>	