

# N7674J – 1968 - PA-28R-180 – S/N 28R-31074

## Weight and Balance Worksheet / Date \_\_\_\_\_

	Example		N7674J (actual)	
	Weight (Lbs)	Moment (in*Lbs)	Weight (Lbs)	Moment (in*Lbs)
<b>Basic Empty Weight<sup>1</sup></b>	1609	136017	1609	136017
Fuel (50 gal <sup>2</sup> , full, 300 lbf, 28500 in*lbf)				
Fuel (36 gal, tabs, 216 lbf, 20500 in*lbf)	216	20520		
Pilot <sup>3</sup> (lbf)	260	22230		
Front Passenger (lbf)	220	18810		
Rear Passenger 1 <sup>4</sup> (lbf)	165	19486		
Rear Passenger 2 (lbf)	0	0		
Baggage (200 lbf limit) <sup>5</sup>	37	5284		
<b>Ramp Weight &amp; Moment</b>	2507	222347		
Startup & Taxi (-1.1 gal)	-7	-665	-7	-665
<b>Take-off Weight &amp; Moment</b>	2500	213223		
Increased aft moment due to retraction of nose wheel	0	819	0	819
<b>In-flight Weight &amp; Moment</b>	2500	221682		
<b>Center of Gravity (in)</b>	221682/2500 = 88.7 in			

(1) Items in yellow are constants, green are adjustable variables, items in orange are products, items in cyan are summations, blue are final answers for plotting.

(2) Per the POH, the maximum gross flight weight is 2500 lbf. Make sure the CG is within range on the plot.

1 Per the latest Weight and Balance Document by Robert D VonBehrens, dated 3-Jul-2018.

2 Aviation fuel weighs 6 lbs/gal. The moment arm for the fuel tank is 95.0 inches.

3 The moment arm for the pilot and front passenger is 85.5 inches.

4 The moment arm for the rear seat occupants is 118.1 inches.

5 The moment arm for the baggage compartment is 142.8 inches.