

Reference: Pilot's Operating Handbook for the Piper 1979 Model PA38-112.

1. The maximum allowable gross weight for takeoff and landing is _____ lbs.
2. The total usable fuel with full standard-range tanks is _____ gallons.
3. The PA38-112 has a flap-extension range of _____ .
4. During engine run-up when a pilot checks the magnetos, lack of an RPM drop may mean:
 - a. Carburetor heat inoperative
 - b. Magnetos are OK
 - c. Faulty ground in the ignition system
 - d. Engine is not warm enough
5. Magneto check is made at _____ RPM, first checking _____ key position, _____ magneto.
 - a. 1800 / R / L
 - b. 1500 / R / R
 - c. 1600 / L / L
 - d. 1800 / L / R
6. You may not operate this aircraft with an oil level of less than:
 - a. 6 quarts
 - b. 4 quarts
 - c. 5 quarts
 - d. 3 quarts
7. The POH recommends _____ of flaps for an obstacle-clearance takeoff.
 - a. 0°
 - b. 21°
 - c. 15°
 - d. 10°
8. Final approach airspeeds for a normal landing with flaps up/flaps down are:

9. The maximum published rate of climb at maximum gross weight, 4000-ft pressure altitude, and 40° C is _____.
10. The PA38-112 V_A (maneuvering speed) and V_{NO} (maximum structural cruising speed) at maximum gross weight in KIAS are _____.
11. The best glide speed after an engine failure is _____ KIAS, flaps _____.
12. The maximum demonstrated crosswind velocity is _____.
13. The PA38-112 stall speed at maximum gross weight, forward CG, flaps up, 0° bank is _____. Under the same conditions at 60° of bank, stall speed is _____.
14. The maximum flap-extension speed (V_{FE}) is:
- a. 149 KIAS b. 35 KIAS c. 89 KIAS d. 111 KIAS
15. Total takeoff distance to clear a 50-foot obstacle at a gross weight of 1670 lbs, a pressure altitude of 4000 feet, and a temperature of 30° C is _____ feet.
16. The vacuum system provides suction to operate which instruments?
- a. Artificial horizon and directional gyro c. Airspeed and directional gyro
b. Airspeed and turn coordinator d. Directional gyro and turn coordinator
17. At maximum gross weight, standard temperature, 6000-foot pressure altitude, and 2400 RPM, you can expect an airspeed of _____ and a fuel-consumption rate of _____.
18. The total landing distance to clear a 50-foot obstacle at maximum gross weight, temperature 20° C, pressure altitude 2000 feet, with a 12-knot headwind on a dry, grass runway is _____.

19. Determine the weight and balance of this airplane using the charts in Section 6 of the Pilot's Operating Handbook.

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>	
Empty weight	1136	30.36	34500.0	
Fuel (standard, 15 gal)	_____	42.2	_____	The CG is _____ in. aft of datum.
Pilot & passenger	360	_____	_____	
Baggage area 1	25	_____	_____	
Totals	_____		_____	

- a. Within gross weight, aft CG
- c. Over gross weight, within CG
- b. Within gross weight, within CG
- d. Within gross weight, forward CG

20. The electrical system consists of a _____ volt battery and a _____ volt alternator:

- a. 12 / 14
- b. 24 / 28
- c. 24 / 30
- d. 24 / 24

21. The vacuum system indicates proper operation with:

- a. 4.6 - 5.4 in. on the suction gauge at engine run-up
- b. 4.6 - 5.4 in. on the suction gauge with engine at idle
- c. Ammeter reading positive
- d. Ammeter reading neutral

22. The engine in the PA38-112 is a _____ .

23. The brake system consists of:

- a. One hydraulic reservoir on the firewall mechanically attached to the pilot's pedals.
- b. A single mechanical cable system from the pedals to the wheel brake assembly.
- c. A single disc, hydraulically actuated brake on each main landing wheel connected to a master cylinder on each pilot rudder pedal.
- d. A redundant arrangement with the left and right systems interconnected.

24. Static RPM should stabilize between approximately _____ RPM minimum and _____ RPM maximum.

25. What is the maximum capacity in the baggage area?

_____ lbs.

26. The PA38 is equipped with standard 5.00 x 5 tires. What is the proper pressure?

_____.

27. Describe the normal take off procedure.

28. With full flaps, what is the ideal final approach speed? _____ KIAS

a. 60

b. 67

c. 75

d. 55

29. Describe the following emergency procedures:

A. Power loss in flight.

29. Describe the following emergency procedures:

B. Alternator failure in flight.

C. Loss of pitot-static pressure.