## AIRPLANE MAKE & MODEL

Part	
С	

**Operations Worksheet** © 2000

	stomer's Name				Corrected to 100% by  Date
eig					
Flig	ght Date		Aircraft to be used	d t	
STU	JDENT PILOTS: Answer questions wit	h boxes (□) for Pre-Solo	o quiz.		
Q	UESTIONS			ANSWERS	
1.	Circle the items on this aircra	ıft: Exhaust Gas Tem	Carburetor	Turbocharger Auxiliary Fuel Pump	

	Alternate Induction Air	Carburetor Heat
	Constant Speed Propeller	Manual Primer
	Manifold Pressure (MP) Gauge	Cowl Flaps
	Fixed Pitch Propeller	Fuel Injection
	In-Flight Adjustable Rudder Trim	Fuel Flow Gauge
2.	ENGINE: Complete for this aircraftEngine model:	
	Horsepower:	
	Maximum RPM:	
	Maximum static RPM:	
	Maximum MP:	
3.		
0.	OIL: Complete for this aircraftTotal oil quantity:	
	Minimum safe oil level:	
	Normal safe oil level:	
	Type of oil used:	
4.	FUEL: Complete for this aircraftGrade(s) of fuel approved:	
	Color(s) of approved fuel: Total fuel / total usable fuel:	
	Number, location, and capacity of fuel tanks:	
5.	MAGNETOS:RPM for magneto check:	
	Maximum RPM drop allowed:	
	Maximum magneto RPM difference allowed:	
6.	How and where is the fuel sumped?	



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7.	How should the fuel selector be positioned prior to takeoff?	
8.	When should the engine be leaned before takeoff?	
9.	Complete for this aircraft at maximum gross weight, sea level, ISA. Indicate if speeds in knots or mph (or N/A if not applicable)Max. flap setting for takeoff: Best angle of climb speed: Best rate of climb speed: Maneuvering speed: Max. flap extension speed: Max. gear extension speed: Max. gear operation speed: Max. structural cruising speed: Never exceed speed: Max. demonstrated cross-wind: Stall, landing configuration: Speed on final:	
10.	How and when should Carburetor Heat (or Alternate Induction Air) be used with this engine?	
11.	Explain cruise leaning procedures:	
12.	What could cause this aircraft to climb too slowly on a go-around?	
13.	What is this aircraft's the best glide configuration?	
14.	Where is the E.L.T. ?	
15.	If equipped with an auxiliary fuel pump, how should it be used? Starting: Taxi: Takeoff: Cruise: Fuel tank change: Landing: Emergency:	



How are cowl flaps used, if so equipped?

17.

If constant speed propeller, what are the actions for a propeller overspeed?



If retractable landing gear equipped, what is the manual gear extension procedure?

Performance

19.	Complete for these takeoff conditions Field Elevation pressure altitude:	Density Altitude:
	Field Temperature:	Takeoff Ground Roll (in feet):
	Headwind Component:	Distance to clear 50' obstacle:
	Runway Surface:Dry Grass	Airspeed above 50' obstacle:
	Weight: Maximum Gross	
20.	Complete for these conditions	
	Pressure Altitude:10,000 feet	Climb Speed:
	Outside Air Temperature:	Rate of Climb (in fpm):
	Weight Maximum Gross	
~ ~		
21.	Complete using conditions 19 and 20 above:	Time to climb from 19 to 20:
		Fuel used in climb from 19 to 20:
22.	Complete for these conditions	
22.	Complete for these conditions Pressure Altitude:	RPM (and MP) setting:
22.	•	RPM (and MP) setting:
22.	Pressure Altitude:10,000 feet	
22.	Pressure Altitude:10,000 feet Outside Air Temperature:5°C	True Airspeed:
	Pressure Altitude:	True Airspeed:
	Pressure Altitude:	True Airspeed: Gallons per Hour of Fuel:
	Pressure Altitude:	True Airspeed: Gallons per Hour of Fuel: Density Altitude:
	Pressure Altitude:	True Airspeed: Gallons per Hour of Fuel: Density Altitude: Airspeed above 50' obstacle:
	Pressure Altitude:	True Airspeed: Gallons per Hour of Fuel: Density Altitude: Airspeed above 50' obstacle: Distance to clear 50' obstacle:
	Pressure Altitude:	True Airspeed: Gallons per Hour of Fuel: Density Altitude: Airspeed above 50' obstacle:
	Pressure Altitude:	True Airspeed: Gallons per Hour of Fuel: Density Altitude: Airspeed above 50' obstacle: Distance to clear 50' obstacle:

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## Weight & Balance Exercise 1 — Fuel Tanks Full

24. Complete the W&B table below for these conditions

SOLVE:

GIVEN: ......with Full Fuel Tank(s), Load to Maximum Gross Weight (or Max. Ramp Weight) How many 170# occupants?\_\_\_\_ How much (if any) baggage?\_\_\_\_ Center of Gravity?\_\_\_\_\_

ITEM	Moment	Weight	Arm
Basic Empty Weight including unusable fuel and full oil.			
Pilot Station			
Station 2			
Station 3			
Station 4			
Fuel, Main; Gallons ( )			
TOTALS:			C.G.
	Within C.G and Weight Limits? Y N		

## Weight & Balance Exercise 2 — All Seats Filled

Complete the W&B table below for these conditions
GIVEN: ......with All seats filled, occupants 170# each,
Load to Maximum Gross Weight (or Max. Ramp Weight)

SOLVE: How much fuel permissible? \_\_\_\_\_ How much (if any) baggage? \_\_\_\_\_ Center of Gravity?\_\_\_\_\_

ITEM	Moment	Weight	Arm
Basic Empty Weight including unusable fuel and full oil.			
Pilot Station			
Station 2			
Station 3			
Station 4			
Fuel, Main; Gallons ( )			
TOTALS:			C.G.
	Within C.G and Weight Limits? Y N		

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