

N41357 PA-28-140
Aircraft Knowledge Review

Pilots Name: _____ **Date:** _____

Reviewed By: _____ **Date:** _____

Section 1 - General

1. Engine Model:
2. What grade and color of fuel should be used in this aircraft?
Grade: _____ Color: _____.
3. What is the usable fuel capacity?
4. What brand and weight of oil should be used?

Section 2 - Limitations

1. List the V speeds for the Piper PA-28-140 (MPH)

Vne			
Vno			
Va			
Vfe			

2. What do the white and green arcs on the airspeed indicator represent?
White: _____ Green: _____.
3. List the max off weights for the following categories:
Normal: _____ Utility: _____
4. List one maneuver that may be flown only in the utility category. _____.

Section 3 – Emergency Procedures

1. List the following priorities 1, 2, or 3 (common knowledge)

Navigate Communicate Aviate

2. List the appropriate speeds to be used during the following (MPH):

Engine failure after take-off: _____ MPH Best glide speed: _____ MPH

3. Complete the following checklist items for an in-flight engine failure:

1	Fuel Selector		4	Heater	
2	Throttle		5	Defroster	
3	Mixture		6	Land when?	

4. Complete the following checklist items for the illumination of alternator failure

1	Electrical Load				
2	Alternator CB's				
3	'ALT' Switch				
If Ammeter continues to Indicate no output					
1	'ALT' Switch				
2	Non-essential radios and electrical				
3	Why not turn 'BAT' off?				

Section 4 – Normal Procedures

1. List the appropriate speeds for the following operations (KIAS)

Normal take-off and climb Pg 7-4	
Short field take-off (flaps 25°)	
Best Rate of Climb Vy @ sea level	
Best Angle of Climb Vx @ sea level	
Normal approach to landing – flaps up	
MPH decrease for each flap setting	

2. Oil Level (quarts) Min: _____ Max: _____.

3. Describe the procedure for a short field take-off over obstacle

1	Flaps		5	Throttle	
2	Carburetor Heat		6	Lift off (grnd effect)	
3	Brakes		7	Climb speed	
4	Mixture		8	Flaps retract	

4. What checklist items should be complete before landing?

1	Seats, seat belts, shoulder harnesses	3		Mixture	
2	Fuel selector valve & Fuel Pump	4		Carburetor heat	

5. What would alert you to an imminent stall?

Section 5 Performance

1. Why does stall speed increase with bank angle? (common knowledge)
2. What is the stall speed at gross weight, flaps 0°, and bank 45° (MPH)?
3. Determine the take-off distance required to clear a 50 ft obstacle under the following conditions:

Weight - 2150 lbs Density alt – 3000'
 OAT – 30C Wind – Calm
 Surface – Dry Pavement
 Take-off Distance: _____

4. Determine the landing distance to clear a 50' obstacle under the following conditions: (assumed flaps = 40 deg)

Weight – 2150 lbs Density Alt – 3000'
 OAT – 30C Head wind – 0kts
 Landing Distance: _____

Section 6 Weight and Balance

1. Using the following weight and balance information for N41357, perform a weight and balance for the following flight and determine if the aircraft is within limits.

N41357 Empty Weight 1399.3 Moment 124,019.96 .

Location Weig	ht	Moment
Front Pilot/Passenger	420 lbs	
Rear Passengers	0 lbs	
Baggage Area 1	100 lbs	
Fuel Full	lbs	
TOTAL		

Is the aircraft within weight and balance limits?

What minimum reduction of fuel, if required, would be needed? .

Section 7 Systems

1. T or F Brakes should be used at all times during taxiing? (common Knowledge)
2. T or F Does N41357 have a standby vacuum system?
3. Which two flight instruments are powered by the vacuum system?