

Pre-solo Written Exam

Name: _____

Date: _____

Airplane Make/Model: _____

Answer the following questions in the space provided, using the FARs, AIM, AFD, and POH. If you reference one of these sources for an answer, be sure to note it for your future reference.

What type of engine does the Archer have? _____

What is the engine horsepower? _____

How many gallons of useful fuel does the Archer hold? _____

What type of oil should be used in this engine? _____

What type of coolant is in the Archer? _____

Please define in your own words and list the speed for each of the following in the Archer:

V_r _____

V_x _____

V_y _____

Best Glide _____

V_{ne} _____

V_{no} _____

V_a _____

V_{fe} _____

V_{s1} _____

V_{so} _____

What is the maximum demonstrated crosswind component for the Archer? _____

What is the service ceiling of the Archer? _____

What is the distance to clear a 50 foot obstacle on a standard day? _____

What is the landing distance over when landing over a 50 foot obstacle on a standard day?

Please describe the loss of engine procedures for the Archer.

What is the maximum gross weight of the Archer? _____

What is the empty weight of the Archer? _____

What is the useful load of the Archer? _____

With full fuel, how much weight can you carry in Archer? _____

Describe the electrical system on the Archer:

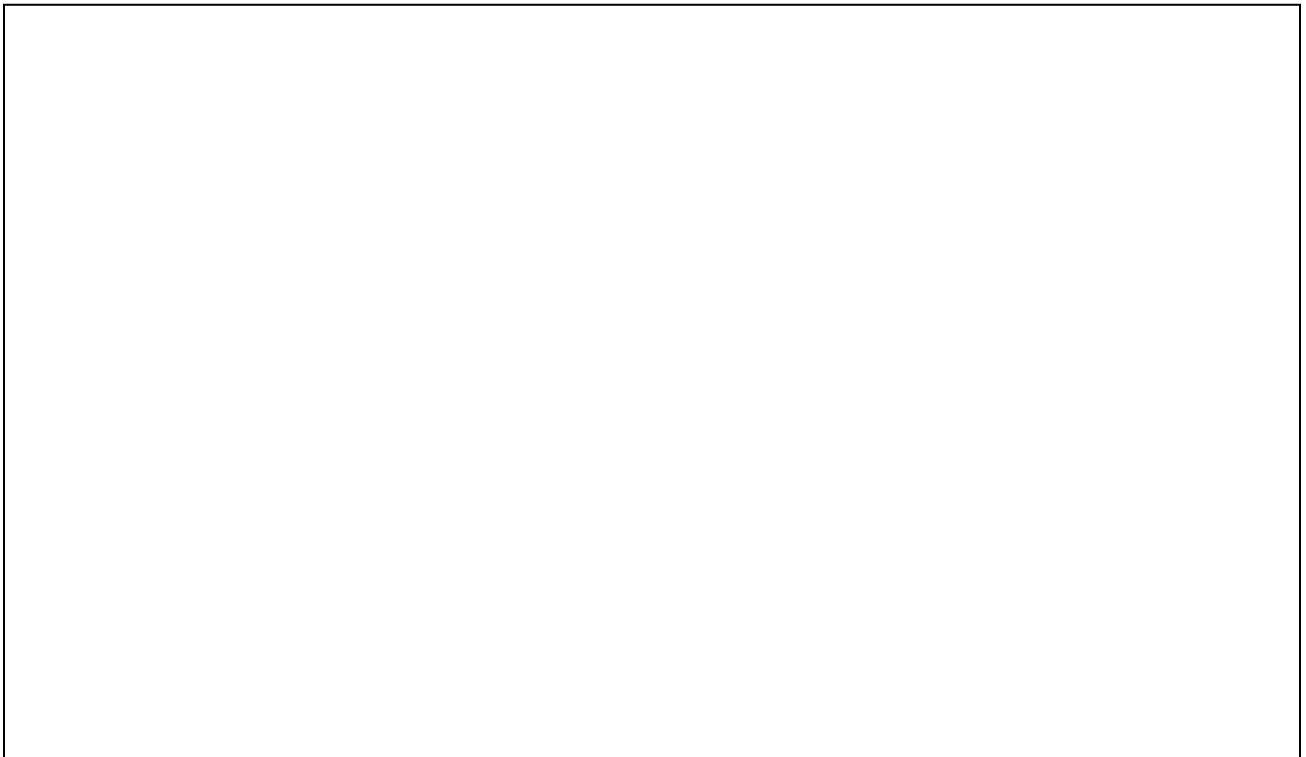
How do you know if you've had an alternator failure?

What is the squawk code for radio failure?

Name the light gun signals for: Cleared to Land / Airport Unsafe: Do Not Land / Continue Circling / Others?

1. What preflight actions are required before a flight not in the vicinity of an airport? Before any flight?
2. List the minimum equipment and instruments that must be working properly in your aircraft for flight.
3. How many hours are required between consuming alcohol and flying? What is the maximum blood alcohol content to legally operate an aircraft?
4. What altitude should you fly when operating in level cruising flight at more than 3,000 feet agl?

5. Why is it necessary to drain fuel from the fuel sumps? When should this be done?
6. What type and grade of fuel is used the Archer?
7. How do you check the oil level in the Archer? What is the minimum allowable for a local flight?
8. Will the engine run with the master switch turned off? Why?
9. What is the maximum allowable flap setting for takeoff in the Archer?
10. What documents and endorsements are you required having in your possession to legally operate the airplane as a student pilot?
11. Do you need your logbook in your possession when you fly solo? Why/Why not?
12. During a magneto check, what is the maximum RPM drop?
13. Draw a diagram of the runways at KHND. Label each runway.



Draw a runway and a traffic pattern and label each leg, with the proper power, airspeed & configuration.



14. Which turn direction is standard for a traffic pattern? What is traffic pattern altitude at KHND & Jean, NV?
15. How do you enter and exit the traffic pattern at an uncontrolled airport?
16. List the following frequencies at KHND:
 - a. **ATIS** –
 - b. **Ground / Clearance** –
 - c. **Tower** –
 - d. **CTAF** -
17. Describe, “Wake turbulence”. In which type of aircraft and in which configuration is this most prominent? What is proper procedure to avoid wake turbulence?
18. When are you required to wear a safety belt? Shoulder harness?

19. What is the minimum altitude you can fly anywhere? Over congested areas? Over other than congested areas? Over sparsely populated areas or open water?

20. List the documents that must be aboard the aircraft at all times.

21. Who has the final authority and responsibility for the operation of the aircraft when you are flying solo?

22. Can you operate in Class B airspace as a student pilot?

23. What is the minimum fuel requirement for VFR day conditions?

24. If the altimeter setting is not available at an airport, what setting should you use before departing on a local flight?

25. What are the limitations of a student pilot, as stated in Part 61.89 of the Federal Aviation Regulations?

26. What must you do before practicing maneuvers?

27. When practicing Steep Turns, Stalls, and Slow Flight, the entry altitude must allow a recovery to be completed no lower than _____ feet agl.

28. When two aircraft of the same category are converging head-on, which way do you turn to avoid the other aircraft?

29. Give three situations that would necessitate a go-around. List the procedure for a go-around.

30. What is the procedure for making a change in flight attitude? I.E., leveling off to cruise, climbing, descending, etc?

Instructor _____

Student Signature _____

Instructor Signature _____

Date of Review/Logbook Endorsement _____