

## Pre-Solo Written Test

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Instructions: Answer each question in the space provided. The instructor may pick and choose particular questions to shorten the length of the quiz.

1. Define and list the following speeds for your aircraft:

Vs \_\_\_\_\_

Va \_\_\_\_\_

Vso \_\_\_\_\_

Vfe \_\_\_\_\_

Vr \_\_\_\_\_

Vno \_\_\_\_\_

Vx \_\_\_\_\_

Vne \_\_\_\_\_

Vy \_\_\_\_\_

Vw \_\_\_\_\_

2. What is the airplane's best glide speed? \_\_\_\_\_  
When is it used?
3. List the procedure to respond to an in-flight engine failure.
4. List the procedure to respond to an engine fire on the ground while starting.
5. List the procedure for loss of communication radio when arriving at an airport with an operating control tower.

## Pre-Solo Take-Home Test

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Instructions: Answer each question in the space provided, using the FARs, the AIM, the Airport/Facility Directory, and the Pilot's Operating Handbook. Use the space to the left of the question number to list the reference for each question. The instructor may pick and choose particular questions to shorten the length of the test.

1. What is the maximum gross weight of the airplane in the Normal category?
2. If a glider is converging with an airplane, which has the right of way?
3. What are the limit load factors in both the Normal and Utility categories with the flaps up and down?
4. What preflight action is required of a pilot prior to a flight?
5. What is the maximum rpm of your airplane?
6. Define an aerobatic maneuver.
7. Generally describe the engine in your airplane.
8. List the definition of careless or reckless operation.
9. What is the oil sump capacity in your airplane? \_\_\_\_\_  
What is the minimum?
10. What is the minimum amount of time after the consumption of alcohol a pilot is required to wait?

11. What would happen to the fuel indicators if all electricity in the airplane was lost?

12. What are the basic VFR weather minimums?

13. What is the minimum visibility for a student pilot?

14. Why is it necessary to drain fuel out of the sumps after refueling and before the first flight of the day?

15. List and describe each of the light gun signals available from air traffic control.

16. Will the engine still run if the master switch is turned off? \_\_\_\_\_ Why?

17. What are wing-tip vortices (wake turbulence)?

With which aircraft are they greatest?

Describe proper avoidance.

18. What endorsements are required for solo flight?
  
19. What three documents must you have in your possession to solo an aircraft as a student?
  
20. During runup, what is the maximum allowable rpm drop?
  
21. Draw an airport traffic pattern, labeling each leg and the proper entry and departure points.
  
  
22. Which turn direction is standard for an airport traffic pattern?
  
23. List the traffic pattern altitude, direction of turns, noise abatement procedures, and all radio frequencies for the following local area airports and their runways.
  
  
24. What is the fuel capacity? \_\_\_\_\_  
How much is usable?
  
25. What is the authority and responsibility of the pilot in command?
  
26. When are you required to wear a safety belt?
  
27. When are you permitted to deviate from an ATC instruction?
  
28. What grade(s) of aviation fuel is/are available for use?  
  
What color is each?

29. When an aircraft is approaching another head-on, each pilot should alter their course to the \_\_\_\_\_.
30. A(n) \_\_\_\_\_ on the runway indicates that the runway is closed.
31. Draw the pavement marking requiring you to stop before entering a runway.
32. When is dropping objects from an airplane permitted?
33. The \_\_\_\_\_ of two aircraft on approach to the same runway has the right of way.
34. What must a pilot do before entering Class D airspace?
35. What is the minimum safe altitude anywhere?  
Over congested areas?
36. List the day-VFR weather minimums in Class G, E, and D airspace.
37. List the documents that must be aboard the aircraft at all times.
38. When must the aircraft's navigation lights be on?
39. What are you, as a student pilot, required to have before operating in Class B airspace?
40. What is the minimum reserve fuel required for day VFR operations?