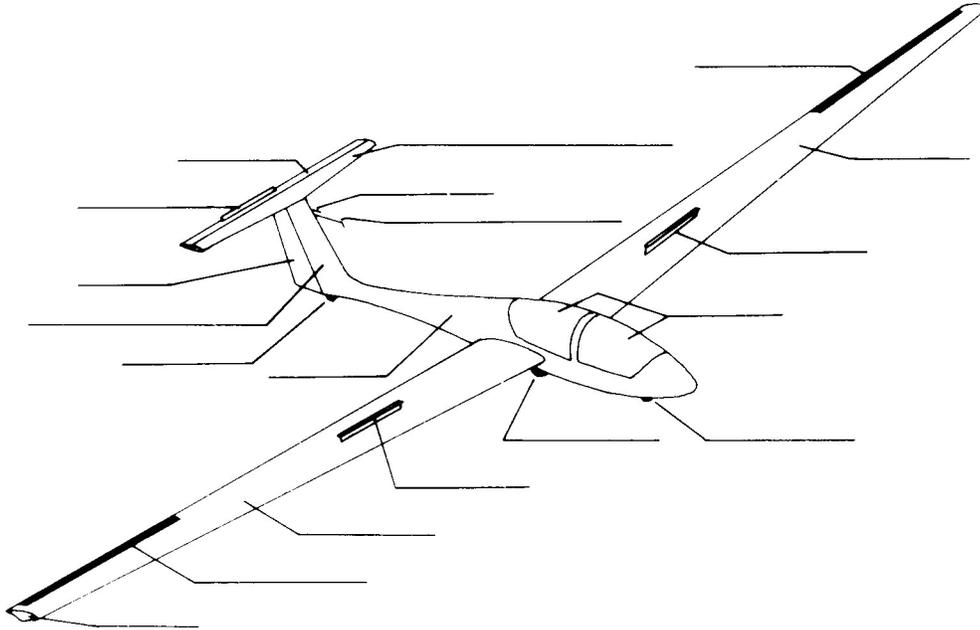


Written Tests
from the book **Glider Basics**,
by Thomas Knauff

Written Test #1



1. Nomenclature. Name all the above parts of the aircraft.
2. Why does an aircraft have...
 - a. Ailerons?
 - b. Elevator?
 - c. Rudder?
3. What does the wing do?
4. What is angle of attack?
5. Name three things that happen when angle of attack is changed.
 - a.
 - b.
 - c.
6. Pushing on the left rudder pedal will cause the nose of the glider to yaw which way?
7. Why does a glider have a yaw string?
8. In the following drawing, which rudder should be pressed to straighten the yaw string?
9. Before making a turn, a pilot should always
10. What turns an aircraft?

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Written Test #2 - Stability

1. Name the three axes of the glider.
 - a.
 - b.
 - c.

2. When the glider moves about any axis, it rotates about the ____ _ ____.

3. The glider fuselage tends to fly streamlined through the relative airflow because of the _____ effect and thus is stable about the yaw (vertical) axis.

4. The glider tends to fly with its wings level because the wings are mounted on the fuselage at an angle called _____.

5. Pitch stability is achieved by a balancing act between the horizontal stabilizer and the _____ _ _____.

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Written Test #3 – Shallow, Medium & Steep Turns

1. When a pilot 'flies' an aircraft, only three things are being controlled. They are:
 - a.
 - b.
 - c.

2. In a shallow turn, the pilot will need to hold some aileron (into, against) _____ the turn because of the _____ stability.

3. In a steep turn, the pilot will need to hold some aileron (into, against) _____ the turn because of the _____ tendency.

4. During all turns, some _____ will be need in the direction of the turn.

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Written Test #4 – Preflight

1. What is meant by 'popped' rivets?
2. What would cause a popped rivet?
3. What are some of the common signs of possible hidden damage?
4. What should you look for when checking the tow release mechanism.
5. What would distorted hinges on the ailerons or dive brakes indicate?
6. What should a student pilot do if evidence of damage or excessive wear is found?
7. What documents are required in a glider?
8. What should you look for when checking the pitot tube?
9. How can you ensure that you check every important preflight item?
10. Who is responsible for checking the towrope before each flight?

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Written Test #5 – Forward Stalls

1. What is a stall?
2. Name 6 signs of an impending stall in the order they occur.
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.
3. Where on the wing does a stall first occur?
4. When the wing stalls, the glider pitches nose down. Why?
5. What is the minimum stalling speed of the glider you are being trained in?
6. Can a glider stall at a higher airspeed? How?
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.
7. Why is it important to practice stalls?
8. How is a normal recovery made from a forward stall?
9. If a wing starts to 'drop' during a forward stall, how should that wing be raised? Why?

Written Tests
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Written Tests #6 – Turning Stalls

1. Turning stalls are most likely to occur close to the ground. Why?
2. Name three occasions where a turning stall is most likely to happen.
3. Without an abrupt control motion, a turning stall is most easily entered from a:
 - a. shallow turn
 - b. medium turn
 - c. steep turn
4. Give a step-by-step recovery procedure from a turning stall.
5. How do you prevent turning stalls close to the ground?
6. What is one control not to use during the first steps of a turning stall recovery?
7. From the standpoint of turning stalls, the most difficult bank angle to stall a glider is:
 - a. shallow turn
 - b. medium turn
 - c. steep turn

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Written Test #7 – Landings

1. What is the dive brake open glide ratio of most sailplanes?
2. What is the maximum glide ratio of the glider you fly?
3. Below 1000 feet AGL a pilot should never _____?
4. What is the three item checklist performed at the IP?
5. What is the primary judgmental decision to be made during the downwind leg?
6. What two checkpoints are used during the downwind leg?
7. What is the normal desired sink rate during the downwind leg?
8. What should you do if you experienced excessive sink during the downwind leg?
9. What would you do if you encountered lift during the downwind leg?
10. How should the turn into base leg be made?
11. Upon completion of the turn onto base leg you realize that you are too high. What will you do?
12. You are on base leg ready to turn into final and realize you are too high. There is one type of pattern that should be avoided. What is it?
13. On final it is important to maintain a constant _____ using the _____ control, and “freeze” the desired touchdown point on the windshield using which control?
14. On final you realize that you are above the 5:1 glide slope. As a student pilot you should _____?
15. As an experienced pilot, when might you find the TLAR method most useful?