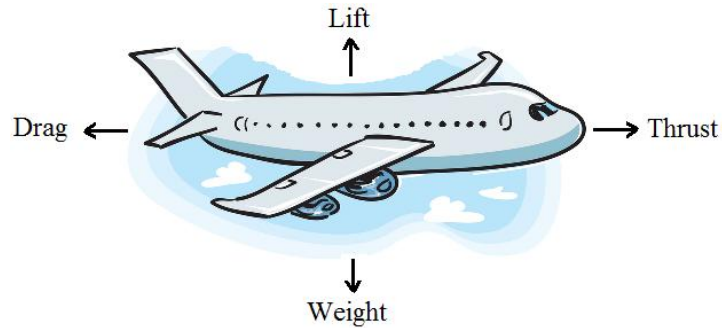


Stability and Motion: Science of Flight Check for Understanding

Use the following picture to answer questions 1-4.

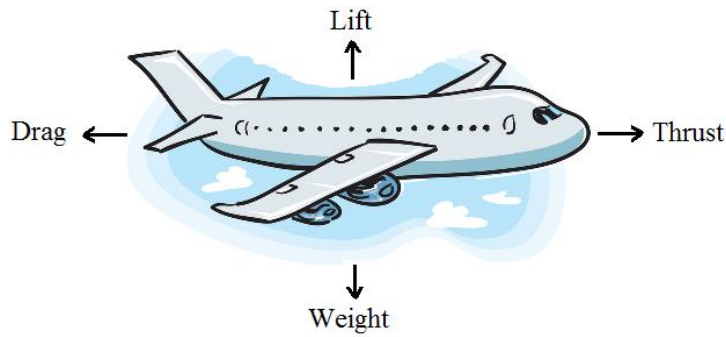


Circle the words that makes the statement true.

1. When an airplane lands on the ground, thrust is _____ the drag.
 greater than less than

2. Explain why the statement above is true.

Possible correct answer: The thrust is less than the drag because the airplane is slowing down as it lands on the ground.



3. When an airplane takes flight, lift is _____ the weight.

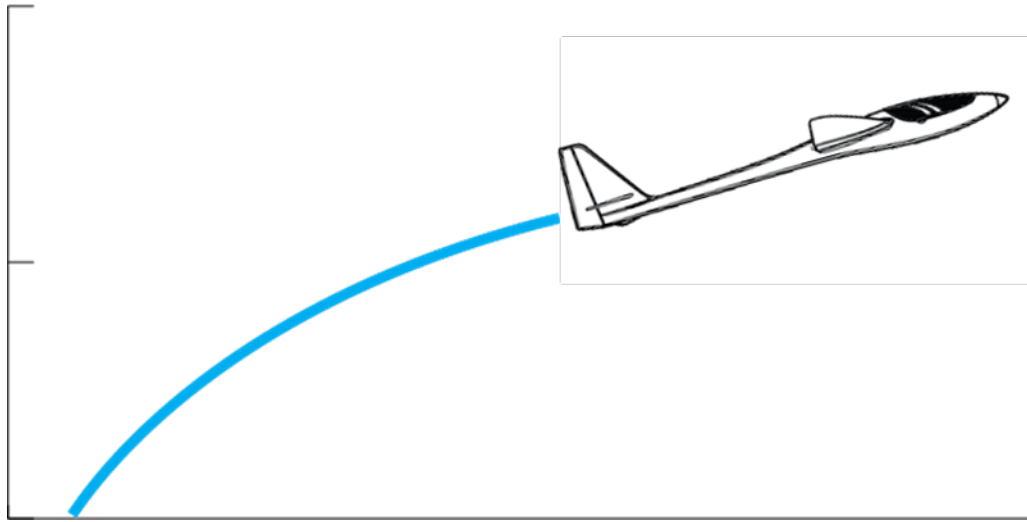
greater than

less than

4. Explain why the statement above is true.

Possible correct answer: The lift is greater than the weight because the airplane is rising, and the lift causes the plane to take flight. The greater lift creates an unbalanced force, and the plane takes off.

5. The following picture shows the path of a glider through the air.



Explain whether the lift and weight forces are **balanced** or **unbalanced**. Use the illustration to provide evidence to support your thinking.

The lift and weight forces are unbalanced. In this illustration the lift is greater because the glider is rising. The lift force is greater than the weight, and the glider travels higher in its flight path.
