



The Australian Unmanned Systems Academy Dual Qualification Training Program

Revision Exercise 1

Lift

Australian Unmanned
Systems Academy

Instructions:

Read the FULL question before attempting to answer the question.

Use reference material if necessary to help you answer the questions.

Ensure you understand EXACTLY what the question is asking. If you are unsure, ask your instructor to clarify the question.

Only short answers are required.

Question 1. Describe what is meant by the term 'lift'.

Question 2 With respect to LIFT and WEIGHT, describe the relationship that must exist for straight and level flight?

Question 3 What is meant by the term 'Force'?

Question 4 Describe the effect on the lift being generated by an aerofoil when the aircraft to which the aerofoil is attached undergoes any manoeuvring action.

Question 5 Describe what is meant by the principle of mass continuity.

Question 6 Referring to the wing of an aircraft during straight and level flight, describe the principle method by which lift is generated lift generated?

Question 7 On the aerofoil shown below, draw in the elements needed to indicate the 'angle of attack'.



Question 8 On the representation of a wing shown below, sketch the typical lift profile that may be expected.



