

E6B Flight Computer Review

Key Terminology

Define the following terms on the back of this paper: air speed, ground speed, headwind, tailwind, wind correction angle, fuel burn rate, E6B

Solve the following problems. Make sure to show your work and label your units.

Circular Calculator Side: Time, Speed, and Distance

1. How long will it take a pilot to fly if she has a distance of 100 miles plans to fly with an airspeed of 120 mph?
2. How far does a plane travel if they have an airspeed of 145mph and travel for 3.5 hours?
3. How fast is an airplane traveling it travels 260 miles in a time of 2 hours?

Fuel Consumption

4. How much fuel is required if an aircraft burns fuel at a rate of 10 gallons per hour and is planned to be in flight for 2.5 hours?



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Ground Speed

5. What is the ground speed of an aircraft that has an airspeed of 100 knots and encounters a tailwind blowing 20 knots directly behind the aircraft?

6. What is the ground speed of an aircraft that has an airspeed of 120 Knots and encounters a headwind of 20 knots directly in front of the aircraft? How fast is the airplane moving over the ground?

Wind Correction

7. Find the wind correction angle (WCA) a pilot must account for if the airplane is flying a true course (TC) of 180° , has a true airspeed (TAS) of 120 knots and has encountered wind at 270° at 12 knots.

8. In question #7, find the true heading (TH).

9. In question #7, find the ground speed (GS).

10. Explain why pilots must learn to use an E6B flight computer.