

Questions

1. For this question use Performance Manual CAP 698 SEP1 Figure 2.3.

Using the climb performance chart, for the single-engine aeroplane, determine the rate of climb and the gradient of climb in the following conditions:

Given:

OAT at take-off: ISA

Airport pressure altitude: 3000 ft

Aeroplane mass: 3450 lb

Speed: 100 KIAS

- a. 1310 ft/min and 11.3%
- b. 1130 ft/min and 10.6%
- c. 1030 ft/min and 8.4%
- d. 1140 ft/min and 11.1%

2. For this question use Performance Manual CAP 698 SEP1 Figure 2.3.

Using the climb performance chart, for the single-engine aeroplane, determine the ground distance to reach a height of 1500 ft in the following conditions:

Given:

OAT at take-off: ISA

Airport pressure altitude: 5000 ft

Aeroplane mass: 3300 lb

Speed: 100 KIAS

Wind component: 5 kt Tailwind

- a. 19 250 ft
- b. 14 275 ft
- c. 14 925 ft
- d. 15 625 ft

3. For this question use Performance Manual CAP 698 SEP1 Figure 2.3.

With regard to the climb performance chart for the single-engine aeroplane determine the climb speed (ft/min).

Given:

OAT: ISA + 15°C

Pressure Altitude: 0 ft

Aeroplane Mass: 3400 lb

Flaps: up

Speed: 100 KIAS

- a. 1150 ft/min
- b. 1290 ft/min
- c. 1370 ft/min
- d. 1210 ft/min

4. For this question use Performance Manual CAP 698 SEP1 Figure 2.3.

Using the climb performance chart, for the single-engine aeroplane, determine the ground distance to reach a height of 2000 ft in the following conditions:

Given:

OAT at take-off: 25°C

Airport pressure altitude: 1000 ft

Aeroplane mass: 3600 lb

Speed: 100 KIAS

Wind component: 15 kt Headwind

- a. 14 500 ft
- b. 18 750 ft
- c. 16 850 ft
- d. 15 750 ft