

DENSITY ALTITUDE



FIND THE DENSITY ALTITUDE

Name _____

Class _____

For each of the three scenarios, use the provided measurements to calculate density altitude. Round all results to the nearest 100 feet. Use both the formula and the chart (found on the last page), and record both answers. Explain why the answers may vary.

Remember the equations for calculating density altitude.

$$DA = PA + [120 (OAT - ISA)]$$

$$PA = (29.92 - \text{Barometric Pressure}) 1,000 + \text{Elevation}$$

$$ISA = 15 - (2 / 1000 \times PA)$$

SCENARIO 1

Outside air temperature: 17 °C

Barometric pressure: 29.61 "Hg

Elevation: 1,500 feet

Density Altitude Calculation _____

Density Altitude Chart _____



SCENARIO 2

Outside air temperature: 8 °C
Barometric pressure: 28.22 "Hg
Elevation: 4,000 feet

Density Altitude Calculation _____

Density Altitude Chart _____

SCENARIO 3

Outside air temperature: 13 °C
Barometric pressure: 28.98 "Hg
Elevation: 5,000 feet

Density Altitude Calculation _____

Density Altitude Chart _____

QUESTION

In a few sentences, explain why density altitudes may vary when using the equation versus the chart.



DENSITY ALTITUDE CHART

