

- 1) We're covering .7 sm every eighteen seconds. What is our groundspeed?
- a) 233 mph
 - b) 140 mph
 - c) 233 kts
 - d) 142 kts
- 2) You're traveling at 317 km/hr. If you've flown 502 km and burned 82.7 lbs./min, what is your total fuel burn?
- a) 1310 lbs
 - b) 4937 lbs
 - c) 2183 lbs
 - d) 7858 lbs

Given:

	<u>Weight</u>	<u>Station</u>	<u>Mom/1000</u>
BEW	2651 lbs.		264.32
Front Pas.	294 lbs.	59"	()
Rear Pas.	()	84"	18.17
Bags	59 lbs.	()	8.16
Fuel (84 Gals)		72"	()

Fill in the above table to answer questions 3 through 6.

- 3) What is the weight of the Rear Passengers?
- a) 216 lbs
 - b) 191 lbs
 - c) 187 lbs
 - d) 234 lbs
- 4) What is the Moment for the Front Passengers?
- a) 49.83
 - b) 15.22
 - c) 17.35
 - d) 21.74
- 5) What is the Station for the Bags?
- a) 48
 - b) 126
 - c) 107
 - d) 138
- 6) What is the Moment for the Fuel?
- a) 36.3
 - b) 41.7
 - c) 60.5
 - d) 28.6

7) .38 hours equals how many seconds?

- a) 6330
- b) 2280
- c) 1368
- d) 1512

8) Field Elevation = 5916' Temperature = 31°C Altimeter = 29.97"
What is the Density Altitude?

- a) 8410'
- b) 8950'
- c) 9300'
- d) 9550'

9) 723 feet equals how many meters?

- a) 220
- b) 245
- c) 202
- d) 232

Given: Wind = 115°/18,kts, TAS = 148 kts. Temp. = -11°C Press. Alt. = 6500' TC (outbound) = 163° Fuel burn = 8.9 gal/hr Fuel load = 67 gals
Var. = 11° W Dev. = -4°

10) Find the time to turn.

- a) 7 hours 31 minutes
- b) 4 hours 04 minutes
- c) 3 hours 51 minutes
- d) 3 hours 36 minutes

11) If you cover 1.7 nm in 1 minute 49 seconds, how many feet per minute do you need to maintain 348 feet per nautical mile?

- a) 372
- b) 325
- c) 387
- d) 341

12) You fly 407 nm in 2 hours 32 minutes. Your MH is 088° with a TAS of 154 kts. The variation is 4° W and the Wind correction angle is 9° R. What is the true wind direction and speed?

- a) 354° at 47 kts
- b) 313° at 32 kts
- c) 197° at 21 kts
- d) 185° at 26 kts

- 13) You fly across Radial 342 and then Radial 018 at a groundspeed of 115 kts. If it takes you 22 minutes to turn and fly to the station, how long will it take you to pass between the radials?
- a) 11 minutes
 - b) 9 minutes
 - c) 13 minutes
 - d) 15 minutes
- 14) Altitude = 15500' Temperature = -2° C What TAS will give you 193 mph IAS?
- a) 188 kts
 - b) 198 kts
 - c) 219 kts
 - d) 252 kts
- 15) You fly between two airports, a total distance of 324 sm. The wind is 173°/23 kts and a TC of 148°. Your average fuel burn is 12.3 gal/hr and your TAS is 102 kts. What is the fuel required for this trip (US gals)?
- a) 42.7 gals
 - b) 49.2 gals
 - c) 50.9 gals
 - d) 46.8 gals
- 16) 227 liters of oil equals how many US gallons?
- a) 60.0
 - b) 55.4
 - c) 85.8
 - d) 69.9
- 17) You travel 213 sm in 1 hour and 18 minutes. What is your speed?
- a) 164 kts
 - b) 136 kts
 - c) 142 kts
 - d) 171 mph
- Given: MH = 354° TC = 009° MC = 359°
- 18) Using the above information, what is the Wind Correction Angle?
- a) 5° L
 - b) 10° L
 - c) 15° L
 - d) 10° R
- 19) Using the above information, what is the Variation?
- a) 5°E
 - b) 10°E
 - c) 15°E
 - d) 15°W

- 20) Your Density altitude is 6900' and the Pressure Altitude is 6100'. What TAS will equals the speed of sound?
- a) 614 kts
 - b) 667 kts
 - c) 623 kts
 - d) 648 kts
- 21) The winds are 151° at 34 kts. Your TAS is 171 kts. If your TC is 072°, what is your TH?
- a) 079°
 - b) 077°
 - c) 083°
 - d) 087°
- 22) If the ATIS indicates the wind to be 045/14 and the departure runway to be 07, what is the headwind component?
- a) 16 kts
 - b) 8 kts
 - c) 10 kts
 - d) 13 kts
- 23) Three 55 US gallon barrels of fuel weighs how much?
- a) 990 lbs
 - b) 331 lbs
 - c) 1237 lbs
 - d) 667 lbs
- 24) Three 55 Imperial gallon barrels of oil weighs how much?
- a) 1486 lbs
 - b) 1237 lbs
 - c) 1334 lbs
 - d) 1522 lbs
- 25) After doing the Weight and Balance, you find that you're .23" aft of the CG limit. How much weight will you need to move from station 112 to station 80 in order to bring the aircraft safely within CG (1 inch inside of the aft limit) if you weigh 1322 kilos?
- a) 78.9 lbs
 - b) 112.0 lbs
 - c) 88.5 lbs
 - d) 51.0 lbs
- 26) At 7500' the temperature is 11° C. The local altimeter setting is 30.08". If your TAS is 154 mph, what is your IAS?
- a) 128 kts
 - b) 135 kts
 - c) 118 kts
 - d) 140 kts

Use the following information to answer the next few questions.

Winds true: 051° at 16 kts TC: 168° Dev: 6° W TAS: 157 kts Var: 11° W

- 27) What is your Ground speed?
- a) 159 kts
 - b) 164 kts
 - c) 169 kts
 - d) 182 mph
- 28) What is the Compass Course?
- a) 185°
 - b) 182°
 - c) 151°
 - d) 174°
- 29) What is your Magnetic Heading?
- a) 169°
 - b) 185°
 - c) 164°
 - d) 174°
- 30) 4.4 meters equals how many inches?
- a) 94
 - b) 133
 - c) 173
 - d) 156
- 31) What is the standard temperature at 19,500'?
- a) -11° F
 - b) -35° F
 - c) -24° F
 - d) -18° F
- 32) What is the True Altitude if at your Indicated Altitude of 7500' the temperature is 48° F and the altimeter setting 28.97"?
- a) 7220'
 - b) 7760'
 - c) 7030'
 - d) 7880'

- 33) You're cruising at 141 mph. You cross radial 049 and 14 minutes later you cross radial 031. What is the distance to the VOR?
- a) 181 sm
 - b) 107 sm
 - c) 122 sm
 - d) 99 nm
- 34) You have flown for 22 minutes and the DME indicates that you've traveled 81 nm. You notice that you're 14 nm to the right of your intended course. If you have another 129 nm to your destination, what would be your new heading to your destination if your original heading was 062°?
- a) 079°
 - b) 052°
 - c) 056°
 - d) 046°
- 35) CG = 84.8" Gross weight = 8052 kg CG aft limit = 84.2" How much weight do we need to remove from station 123 in order to bring the aircraft within CG?
- a) 121 kilos
 - b) 114 kilos
 - c) 125 kilos
 - d) 130 kilos
- 36) 6.1 hours is how many seconds?
- a) 21,960
 - b) 36,660
 - c) 10,166
 - d) 16,990
- 37) 27430 feet equals how many nautical miles?
- a) 5.19
 - b) 4.51
 - c) 4.17
 - d) 4.78
- 38) Field elevation = 1540' Temperature = 82° F Altimeter setting = 30.33" What is the Density Altitude?
- a) 3550
 - b) 1360
 - c) 2205
 - d) 2855

39) Wind = 105° at 31 kts TC = 330° TAS = 151 kts What is the ground speed?

- a) 159 kts
- b) 165 kts
- c) 171 kts
- d) 182 kts

40) You travel at 337 km/hr for 3 hour 13 minutes. What distance did you cover?

- a) 585 nm
- b) 997 nm
- c) 710 nm
- d) 529 nm