**Atmosphere Conditions Worksheet (each worth 25 pts)**

1. A F-18 is flying at 1,026 kph at 7250 m. What is the air temperature - pressure and density assuming a standard surface temperature of 15 OC? Show all your calculations.
2. A F-18 is flying at 952 kph at 9320 m. What is the air temperature - pressure and density assuming a standard surface temperature of 15 OC? Show all your calculations
3. A F-18 is flying at 1,341 kph at 5380 m. What is the air temperature - pressure and density assuming a standard surface temperature of 15 OC? Show all your calculations
4. A F-35 Lightning has just climbed through an altitude of 7,632 m at 934 kph when a disk ruptures in a sensitive piece of optical equipment. As the engineer analyzing the failure, determine the pressure differential across the sensor housing if the inside sensor pressure was 122 kPa.