16.12.2016 physics individual worksheet:

s is your student number.

k = s mod 10000. T = s mod 100. m = s mod 35. a = s mod 25. L = s mod 10. e = s mod 8.

1. Suppose a star has a surface temperature of 4k degrees. What color would this star appear?

2. Calculate the energy of a photon for Lambda = 0.05k nanometers.

3. Find the energy level and angular momentum for hydrogen according to the Bohr Model.

4. Calculate the wavelength of k grams desk moving T centimeters per second.

5. Find momentum of photon with the wave length of T nanometers.

6. Calculate the mass of the decaying substance after k years if the decay ratio is T and initial mass is s.

Calculate the half-life.

7. Calculate the Schwarzschild radius for the k grams desk.

8. Calculate the annihilation energy of k grams of matter.