Solar Power Physics Problems

1. If the velocity of light through a medium is 300 meters per second, and the wavelength is 0.5 meters, what is its frequency?	A. 606 Hz B. 600 Hz C. 402 Hz D. 333 Hz
2. What is the velocity of light if its frequency is 30 Mhz and wavelength is 12 meters?	A. 252 m/s B. 1.1 * 10^{-9} m/s C. 40 m/s D. 3.6 * 10^{8}m/s
3. Find the wavelength of light that has a velocity of 40 mph, and a frequency of 20 khz.	A. 168 m B. 2.5 * 10^{-3} m C. 8.94 * 10^{-4}m D. 2.52m
4. What is the frequency of light where the velocity is equal to the constant "c" equal to 3.0 * 10^{8} meters per second, and the wavelength is 20 meters?	A. 60Mhz B. 1.5 * 107 Hz C. 25khz D. .065 Ghz
5. The wavelength of one sample of light has a velocity of 30 kilometers per hour and frequency of 300 Mhz is what?	A. .000314m B. 2.8*10^{-8}m C. 20431m D. 6.2 * 10^{23}m
6. Find the velocity of light when the wavelength is 20 cm and the frequency is 20 hz.	A. 4 m/s B. 22m/s C. 6m/s D. 0.8m/s
7. If the distance from one planet to another is 6.0 * 10^{36} miles. Using the formula distance = velocity * time, how long will it take for the light to pass between the planets?	A. 1 * 10^{24} years B. 3000 yrs. C. 1*10^{24} days D. 3 seconds
8. What is the velocity of light that travels 9.0 * 10^{9} miles in three seconds?	A. 1.1 * 10^{13} mph B. 65 mph C. 3*10^{25} mph D. 487 mph
9. What is the frequency of the light from Question #8 if the wavelength is 40m?	A. 242 m B. C. 1.2*10^{8}km D. 786m
10. The time it takes for light to reach a solar cell is six seconds. If the distance from the light source to the solar cell is 2.5 * 10^{1} kilometers, find the light's wavelength if it's frequency is 30 hz.	A. 140m B. 0.14m C. 1.42m D. 4.14m