Sound numerical

1. An observer standing between two cliffs fires a gun. He hears one echo after 1.5 second and another after 3.5seconds. if the speed of sound is 340m/s find the distance between two cliffs.
2. An engine is moving towards the hill at constant speed. When it is at a distance of 0.9 km, if blows a whistle, whose echo is heard by the driver after 5 second, of the speed of sound is 340m/s, calculate the speed of the engine.
3. A man fires a gun towards a hill and hears its echo after 5 seconds. He than moves 340 m towards the hill and fires his gun again. This time the hears the echo after 3 seconds. Calculate the speed of sound.
4. A radio station broadcast at 25m. what is the frequency of this radio station?
5. If Raju heard his school's bell ring 2 minutes before his school and speed of sound is 340m/s, then what is the distance between Raju and his school?
6. How far does sound travel in air when a tuning fork of frequency 560Hz makes 30 vibrations? Speed of sound is 336m/s.
7. What is the minimum distance required for echo underwater when speed of water is 1530 m/s?
8. The sonic boom of an aircraft has time period of 0.00005 second. Find the frequency.
9. The audible range of human ear is 20Hz to 20000Hz. Find the respective frequencies when the speed id 340 m/s.
10. A bat emits ultrasound of frequency 30 KHz. If its speed is 350m/s and bat hears its echo after 0.6 second after emitting the sound. find how far is bat from obstacle and wave length of wave?