

$$f_d = f_s \frac{v - v_d}{v - v_s}$$

the coordinate system so that the positive direction is from the source to the detector (= sound direction + >>)

solve the four cases of the car and ambulance considering your car velocity 22 m/s , ambulance velocity 28 m/s , ambulance siren frequently is 512 Hz and sound velocity 343 m/s.what frequency would you hear in the car?

