Quiz #7: Waves and Sound

Question 1 (2 points)
A node is a position of

a) minimum amplitude
b) maximum amplitude

Question 2 (2 points)
If at a concert you run away from the orchestra, the frequency of the sound you will hear will be

a) increased
b) decreased
c) the frequency of the sound will stay the same

Question 3 (2 points)
Sound waves cannot travel in

a) air.
b) water.
c) steel.
d) a vacuum.
e) sound can travel in all of these.

Question 4 (2 points)
Double the frequency of a wave and you also double its

a) wavelength
b) speed
c) period
d) two of these
e) none of these

Question 5 (2 points)
In western movies, you often see a person putting their ear against the rails in the train tracks to find out if a train is approaching. Why would this give them advance knowledge of the approach of a train?

The speed of sound in a solid is faster than the speed of sound in air. Sound travels about 15x faster in steel than in air. Because of this, the person would hear the sound of the approaching train through the tracks before they would hear it through the air.