



Name _____ Class _____ Date _____

1 What correct **conclusion** can be made based on the **graph** below?

A sound travels faster in dry air
B sound travels faster in cold air
C sound travels faster in moist air
D sound travels faster in warm air

2 What is **one possible reason** for the data shown in the graph below?

A warm air is less dense than cold air
B cold air is less dense than warm air
C warm and cold air have the same densities
D it is always windier when the air is warm

3 The diagram below shows sound waves **entering** a classroom. In order for the sound waves to **spread out** in this manner, sound waves have to _____.

A diffract
B reflect

4 Using the chart below, determine through which of these **substances** sound travels the **fastest**.

Speed of Sound		
medium		speed
gases	air (0°C)	331
	air (20°C)	343
liquids (30°C)	fresh water	1,509
	salt water	1,546
	lead	1,210

A lead
B fresh water
C salt water

5

PREVIEW

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interfere with each other
C sound waves move faster
D frequencies have gone up

A sound needs a medium to travel through
B sound requires oxygen
C sound is not loud enough
D sound requires moisture

9 In the picture below, a fire truck with its **siren** on is **moving** to a fire. Why does the siren **sound different** at point A than at point B?

A the effect of gravity
B the Doppler effect
C temperatures are different
D humidity levels are different

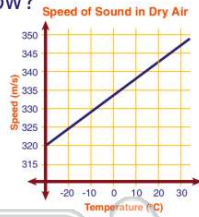
10 The **Doppler effect** causes a siren sound from a fire truck to sound different at points A and B. The siren always **sounds the same** for the firefighters **on the truck** because they are **moving faster** than the source of the sound.
 True or false?
A true **B** false



ANSWER KEY

What correct **conclusion** can be made based on the **graph** below?

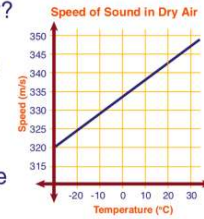
- A sound travels faster in dry air
- B sound travels faster in cold air
- C sound travels faster in moist air
- D sound travels faster in warm air



(d)

What is **one possible reason** for the data shown in the graph below?

- A warm air is less dense than cold air
- B cold air is less dense than warm air
- C warm and cold air have the same densities
- D it is always windier when the air is warm



(a)

The diagram below shows sound waves **entering a classroom**. In order for the sound waves to **spread out** in this manner, sound waves have to

- A diffract
- B reflect
- C combine
- D ...



(a)

Using the chart below, determine through which of these **substances** sound travels the **fastest**.

- A lead
- B fresh water
- C salt water
- D air

Speed of Sound		
medium		speed
gases	air (0°C)	331
	air (20°C)	343
liquids (30°C)	fresh water	1,509
	salt water	1,546
solids (25°C)	lead	1,210
	iron	4,480
	aluminum	5,047

(c)



PREVIEW

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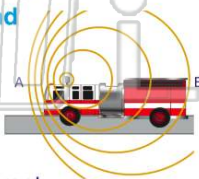
- each other
- C sound waves move faster
- D frequencies have gone up



- B sound requires oxygen
- C sound is not loud enough
- D sound requires moisture

In the picture below, a fire truck with its **siren** on is **moving** to a fire. Why does the siren **sound different** at point A than at point B?

- A the effect of gravity
- B the Doppler effect
- C temperatures are different
- D humidity levels are different



(b)

The **Doppler effect** causes a siren sound from a fire truck to sound different at points A and B. The siren always **sounds the same** for the firefighters **on the truck** because they are **moving faster** than the source of the sound.

True or false?

- A true
- B false



(b)