
PLEASE SUBMIT YOUR WORK THROUGH GOOGLE CLASSROOM

For each question please show your work!

Speed of light
300,000,000 m/sec

Speed of sound
340 m/sec

1. Using approximate values for speed of light and sound in the air that are given above, calculate the time it takes light and sound to travel one mile in the *air*, 1 mile = 1,609 m.
2. Did you get the *huge difference between the two resulting times* in (1)? What commonly observed natural phenomenon is due to this difference?
3. Now calculate how long would it take light to travel from the Earth to the Moon *in space*, distance = 384,400 km, use the same value for the speed of light.
4. Why am I not asking you to calculate how long sound will travel from the Earth to the Moon? 😊