Worksheets

Name

Mechanical Waves Unit Test

Class

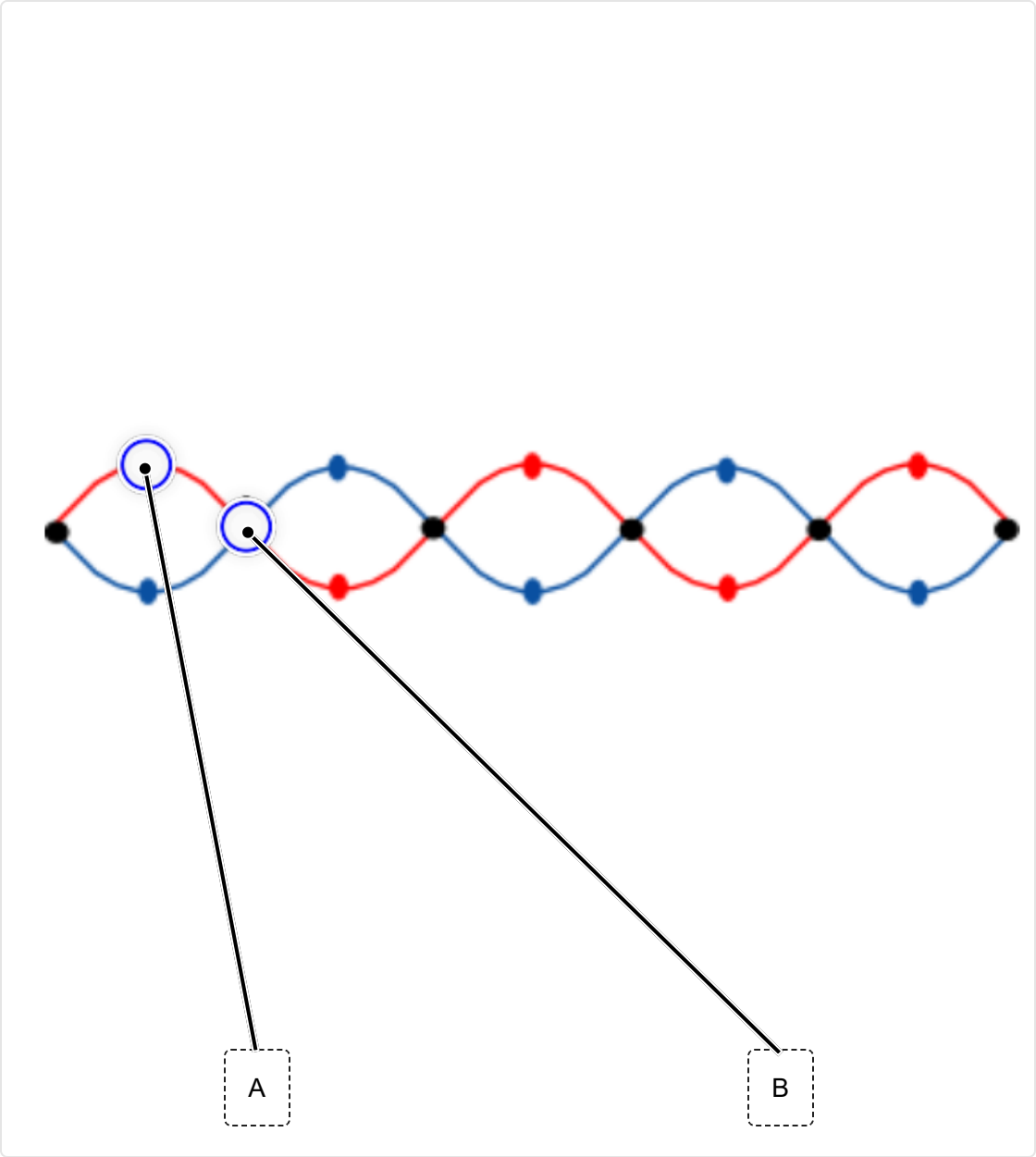
Total questions: 20

Worksheet time: 26mins

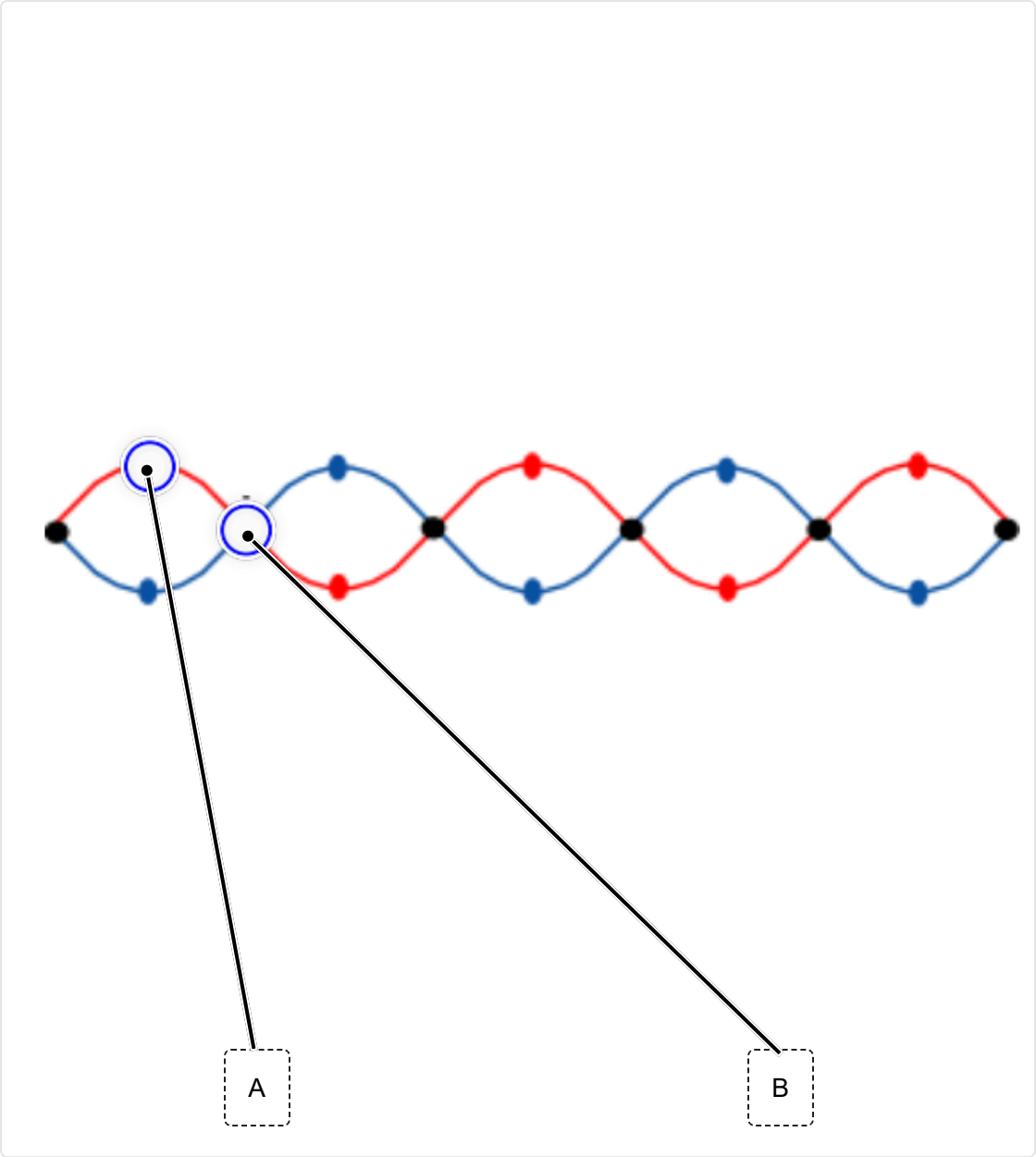
Date

1. What is the velocity of a wave with a frequency of 1.8 Hz and a wavelength 3.6 m? $v = \lambda f$

2. Label the point with an antinode.



3. Label the point with a node.



4. Which of the following is NOT a type of mechanical wave?

5. Draw two waves with the SAME amplitude. One has high frequency, and one has low frequency.

6. Match the following definition to the correct explanation.

Constructive Interference	The total amplitude of the waves is equal to the sum of the amplitudes of the individual waves.
Law of Superposition	Two waves with the same frequency and phase.
Destructive Interference	Two waves with the same frequency and opposite phase.

7. The pitch of a sound is related to the...

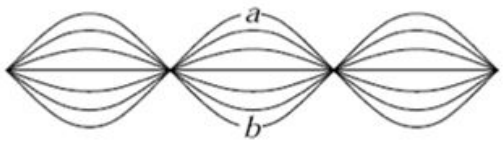
8. A wave pulse is created in a Slinky. It takes 1.5 seconds to travel the length of the Slinky. If the Slinky is 8 meters long, what is the speed of the wave? $v = \frac{\lambda}{T}$

9. The unit that compares the intensity of sound is called...

10. When the frequency of a wave increases, what happens to the wavelength?

11. The _____ Effect refers to the change in observed frequency during the relative motion between a wave source and its observer.

    Ans. _____

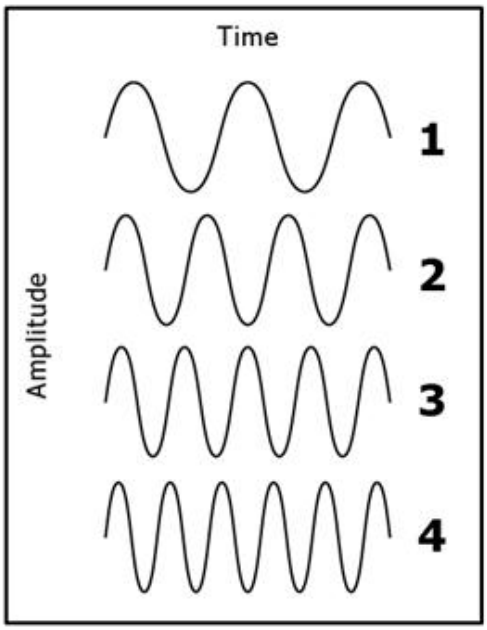
12. 

    A string is clamped at both ends and plucked so it produces a standing wave as shown above. How many nodes and antinodes are there?

13. Waves are a transfer of what?

14. Patterns are only created within the medium at specific frequencies/vibration. These frequencies are known as...

15.



Which transverse wave has the highest frequency?

16.

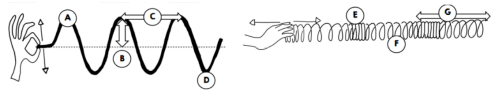
Medium	State	Speed (m/s)
Carbon Dioxide	gas	259
Sea Water	liquid	1,535
Gold	solid	3,240
Oxygen	gas	316
Iron	solid	5,960
Kerosene	liquid	1,324

Which statement can be made based on these data?

17.

At which point is the Compression located?

18.



At which point is the Wavelength located?

19.

At which point is the Crest located?

20. The number of wavelengths that pass a point each per second is: