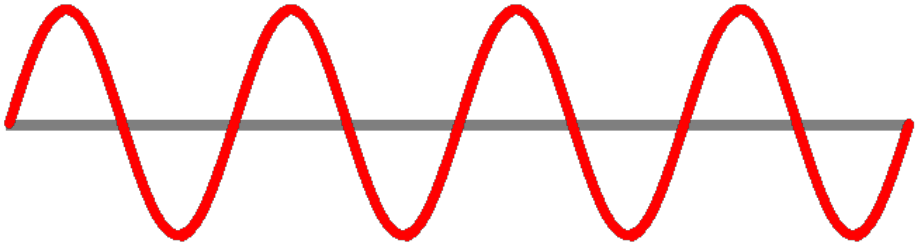
Wavelength

Activity 1: Wave Anatomy

Question Group 1:

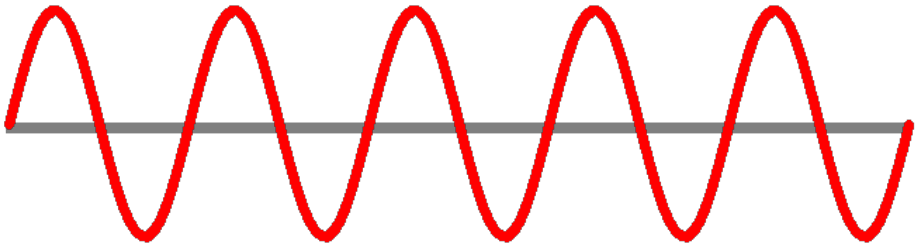
Question 1

Determine the number of crests and troughs in the following transverse wave patterns.



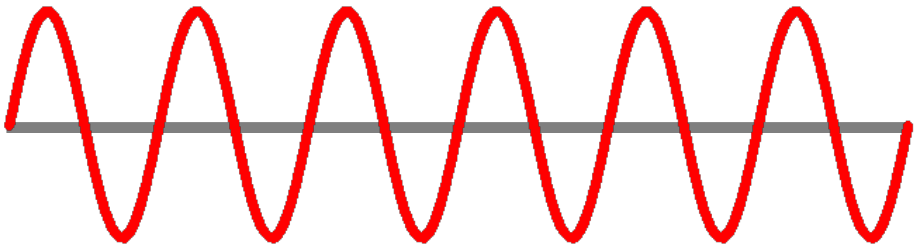
Question 2

Determine the number of crests and troughs in the following transverse wave patterns.

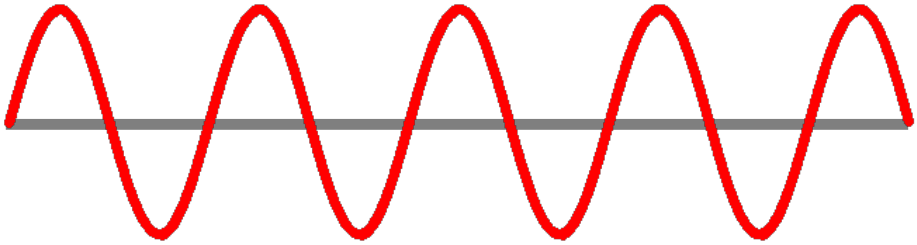


Question 3

Determine the number of crests and troughs in the following transverse wave patterns.

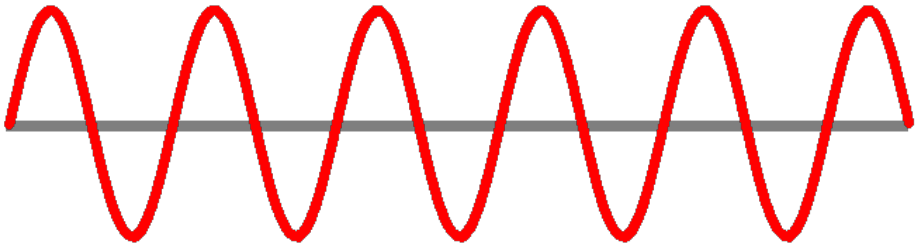


Question Group 2:
Question 4
Determine the number of crests and troughs in the following transverse wave patterns.

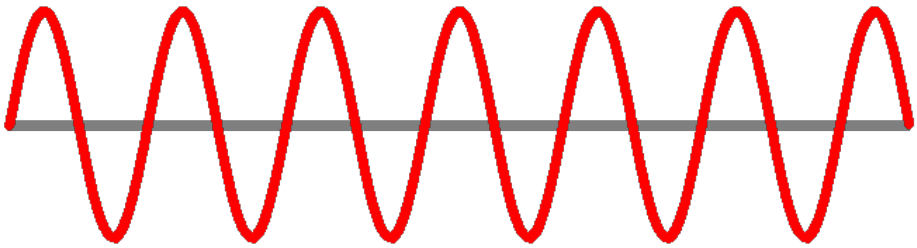


Tap on the answer fields to toggle through your choices for answers.

Question 5
Determine the number of crests and troughs in the following transverse wave patterns.

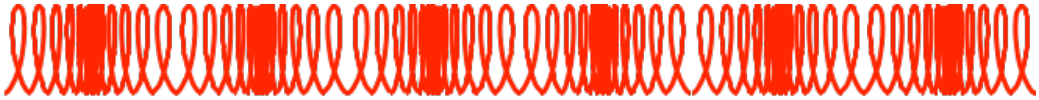


Question 6
Determine the number of crests and troughs in the following transverse wave patterns.

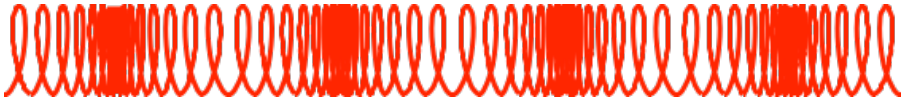


Question Group 3:
Question 7
Identify the compressions in the following longitudinal wave patterns.

Question 8
Identify the compressions in the following longitudinal wave patterns.

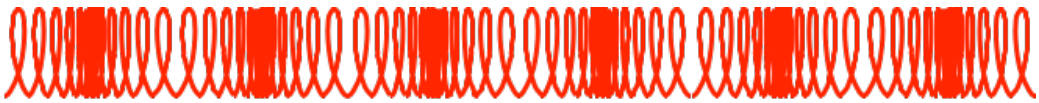


Question 9
Identify the compressions in the following longitudinal wave patterns.

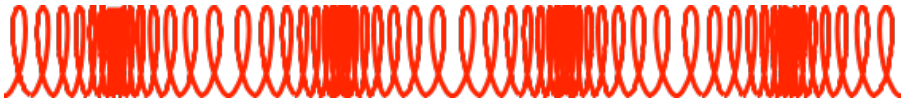


Question Group 4:
Question 10
Identify the rarefactions in the following longitudinal wave patterns.

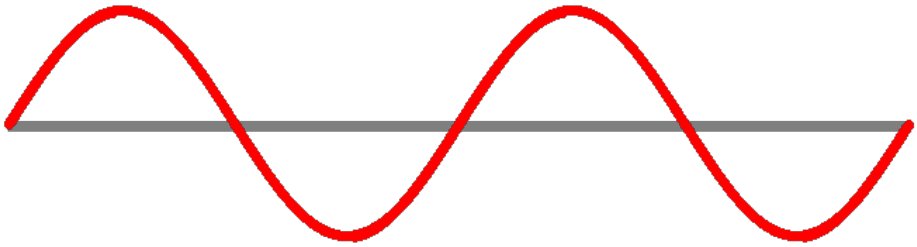
Question 11
Identify the rarefactions in the following longitudinal wave patterns.



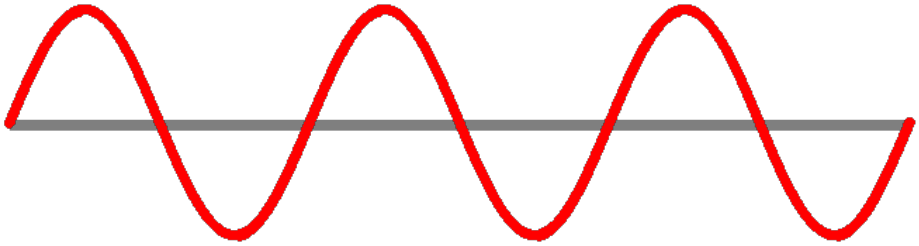
Question 12
Identify the rarefactions in the following longitudinal wave patterns.



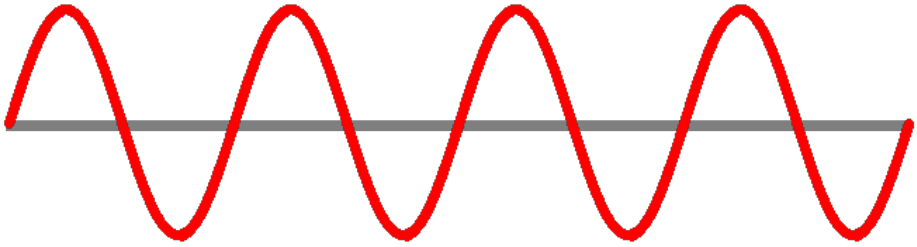
Activity 2: Counting Waves
Question Group 5
Question 13
Determine the number of waves displayed in the transverse wave pattern shown below.



Question 14
Determine the number of waves displayed in the transverse wave pattern shown below.



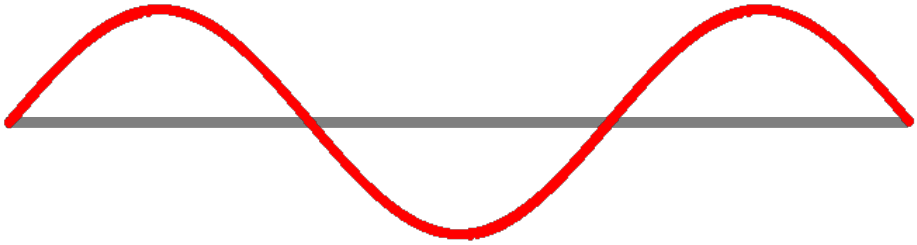
Question 15
Determine the number of waves displayed in the transverse wave pattern shown below.



Question Group 6

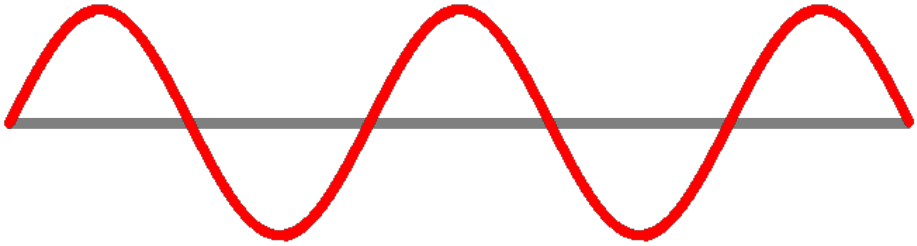
Question 16

Determine the number of waves displayed in the transverse wave pattern shown below.



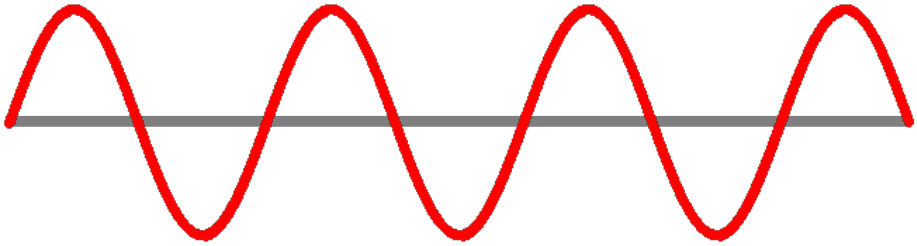
Question 17

Determine the number of waves displayed in the transverse wave pattern shown below.



Question 18

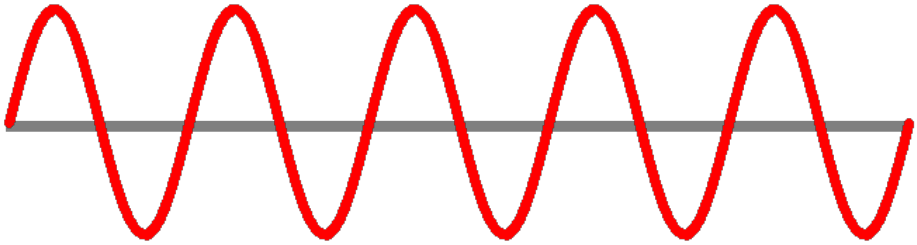
Determine the number of waves displayed in the transverse wave pattern shown below.



Question Group 7

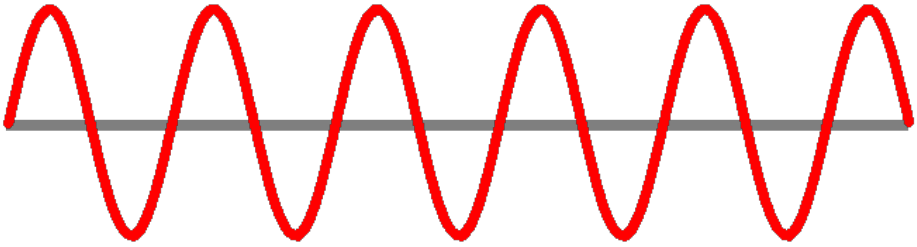
Question 19

Determine the number of waves displayed in the transverse wave pattern shown below.



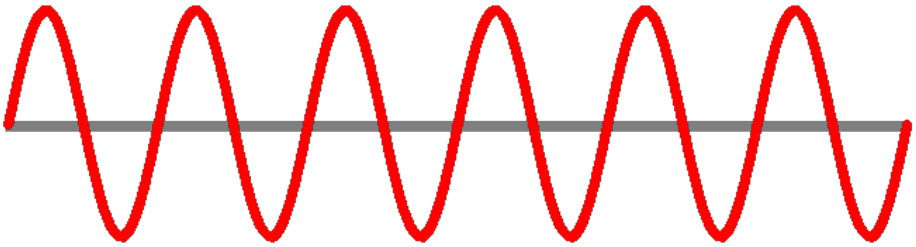
Question 20

Determine the number of waves displayed in the transverse wave pattern shown below.

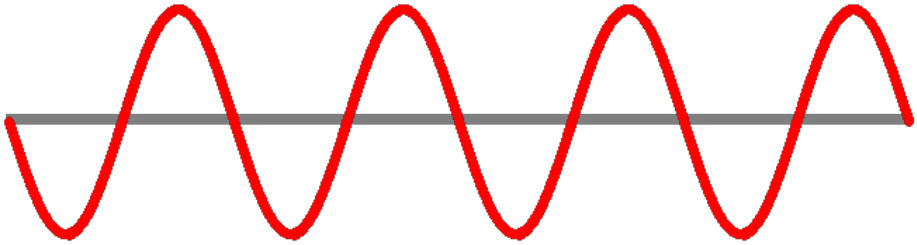


Question 21

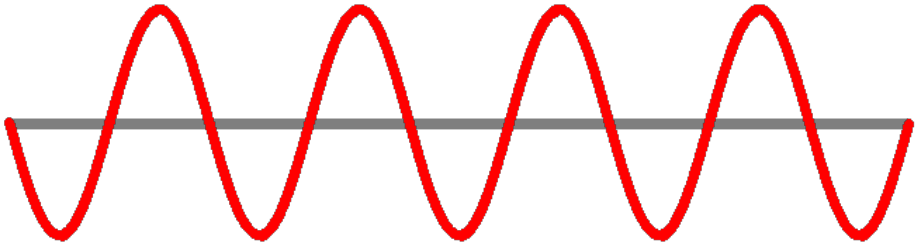
Determine the number of waves displayed in the transverse wave pattern shown below.



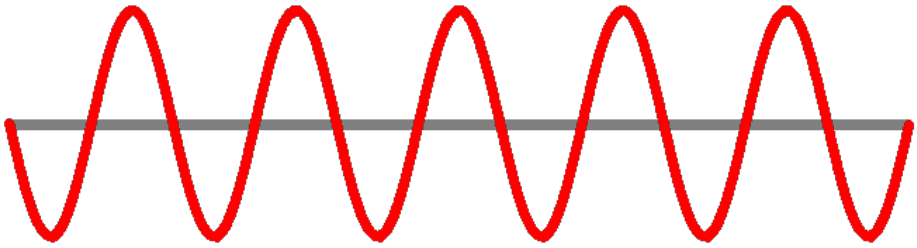
Question Group 8
Question 22
Determine the number of waves displayed in the transverse wave pattern shown below.



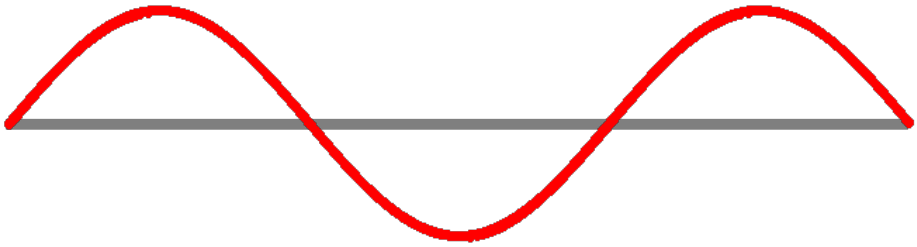
Question 23
Determine the number of waves displayed in the transverse wave pattern shown below.



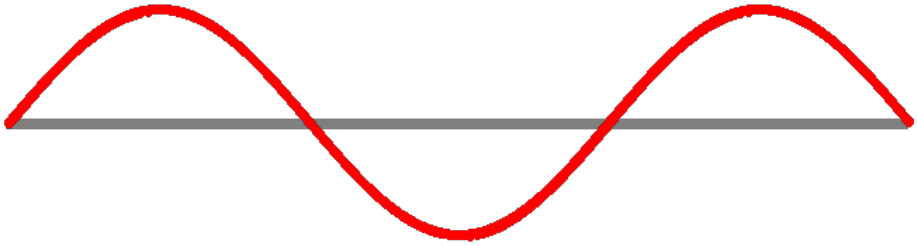
Question 24
Determine the number of waves displayed in the transverse wave pattern shown below.



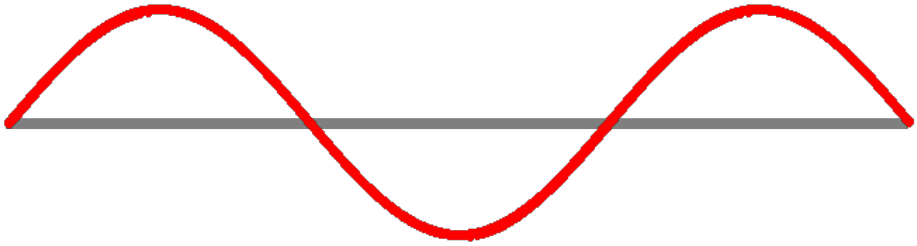
Activity 3: Determining Wavelength
Question Group 9
Question 25
A rope is vibrating at high frequency. The length of the rope is 2.40 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



Question 26
A rope is vibrating at high frequency. The length of the rope is 3.60 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



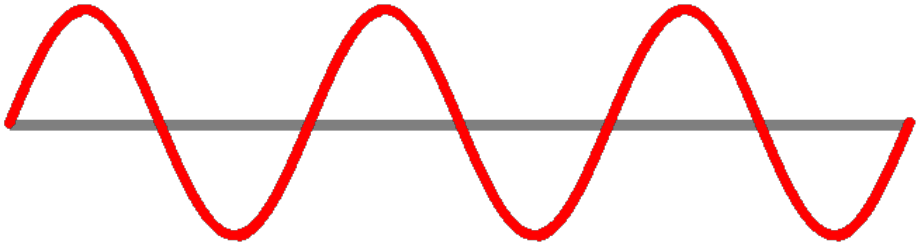
Question 27
A rope is vibrating at high frequency. The length of the rope is 4.80 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



Question Group 10

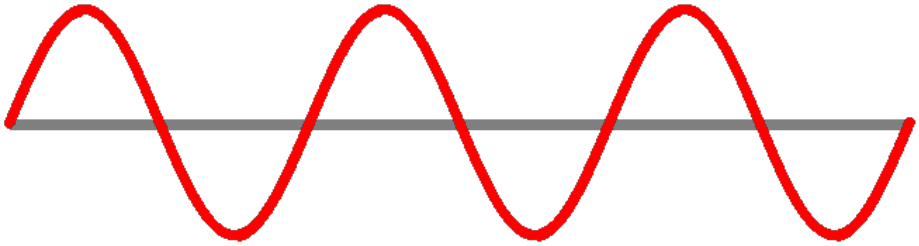
Question 28

A rope is vibrating at high frequency. The length of the rope is 2.40 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



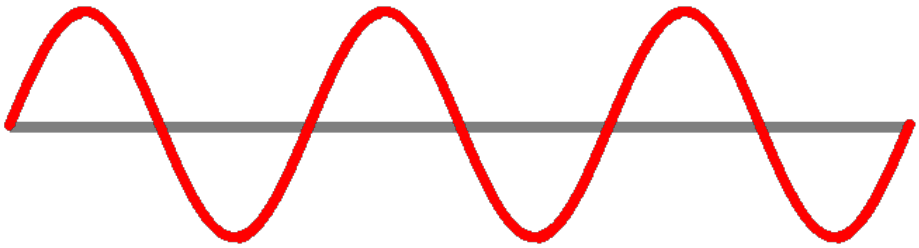
Question 29

A rope is vibrating at high frequency. The length of the rope is 3.60 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.

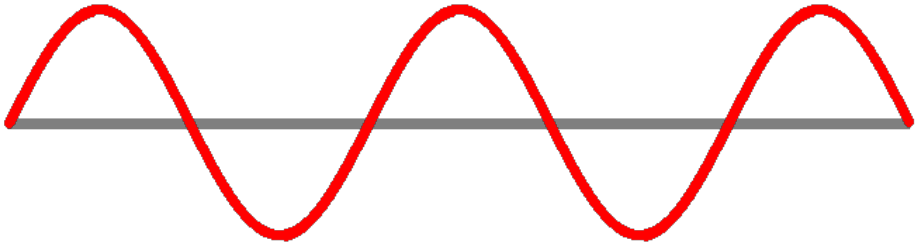


Question 30

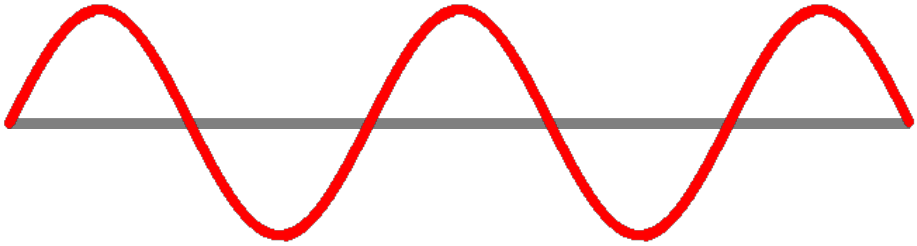
A rope is vibrating at high frequency. The length of the rope is 4.80 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



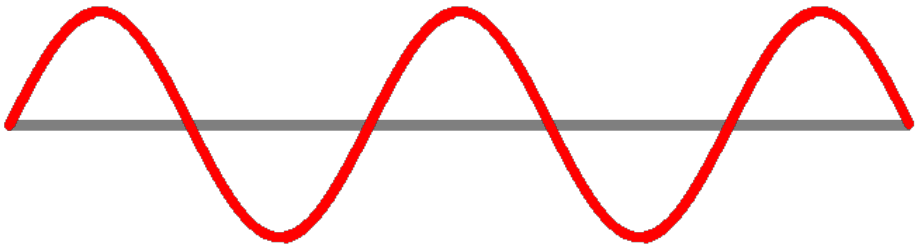
Question Group 11
Question 31
A rope is vibrating at high frequency. The length of the rope is 4.00 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



Question 32
A rope is vibrating at high frequency. The length of the rope is 5.00 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



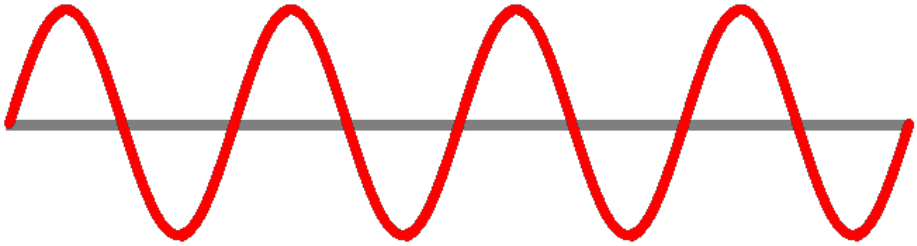
Question 33
A rope is vibrating at high frequency. The length of the rope is 6.00 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



Question Group 12

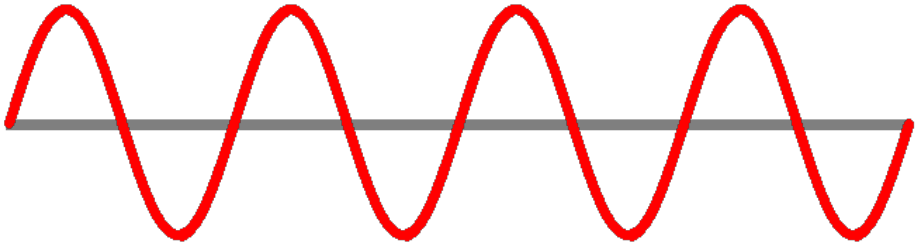
Question 34

A rope is vibrating at high frequency. The length of the rope is 4.00 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



Question 35

A rope is vibrating at high frequency. The length of the rope is 5.00 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.



Question 36

A rope is vibrating at high frequency. The length of the rope is 6.00 meters. A snapshot of the rope at a given moment in time is also shown. Use this information to determine the wavelength of the wave.