Vibrations & Waves

H.S. Phys

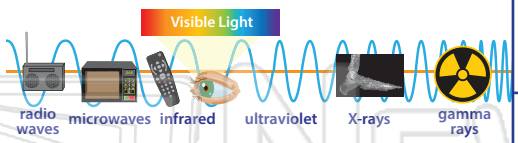
Name _____ Class _____ Date _____

1 **Radio waves** and **gamma rays** traveling in space have the **same** _____.
Circle the answer.

frequency

wavelength

speed



2 The diagram below represents a **wave** traveling in a uniform medium.
Circle **2 points** on the wave that are **in phase**.

C

3 A
p
d
o

lo

h

4 A
a
n
of the wave? Write the answer.

_____ Hz

5 As a pulse travels along a rope, the pulse **loses energy** and its **amplitude** _____.
Circle the answer letter.

a. decreases
b. increases
c. remains the same

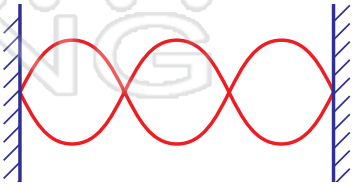
6 Fill in the blank.

The _____ is a **unit** that describes the **number of cycles** of a wave completed in **one second**.

7 How many **nodes** are represented in the **standing wave** diagram below?

1 3

2 4



ater wave
1.2 meters
r wave
d, what is

oduced
aves

ndary

c. reflecting from a barrier

10 A **source of waves** and an **observer** are moving relative to each other. The observer will detect a steadily **increasing frequency** if _____.

a. the source moves away from him at a constant speed
b. he accelerates toward the source
c. the source accelerates away from him

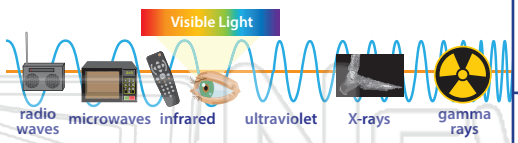
Vibrations & Waves - Answer Key

H.S. Phys

Name _____ Class _____ Date _____

1 **Radio waves** and **gamma rays** traveling in space have the **same** _____.
Circle the answer.

frequency
wavelength
speed



2 The diagram below represents a **wave** traveling in a uniform medium.
Circle **2 points** on the wave that are **in phase**.

C

3 A
p
d
o

lo

h

4 A
a
n
of the wave? Write the answer.

10 Hz

5 As a pulse travels along a rope, the pulse **loses energy** and its **amplitude** _____.
Circle the answer letter.

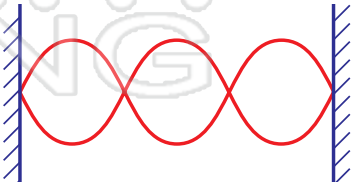
a. decreases
b. increases
c. remains the same

6 Fill in the blank.

The hertz is a **unit** that describes the **number of cycles** of a wave completed in **one second**.

7 How many **nodes** are represented in the **standing wave** diagram below?

1 3
2 4



ater wave
1.2 meters
r wave
d, what is

oduced
aves

ndary

c. reflecting from a barrier

10 A source of waves and an observer are moving relative to each other. The observer will detect a steadily increasing frequency if _____.

a. the source moves away from him at a constant speed
b. he accelerates toward the source
c. the source accelerates away from him