Name: _____ Date: _____

WORKSHEET - LABELING WAVES

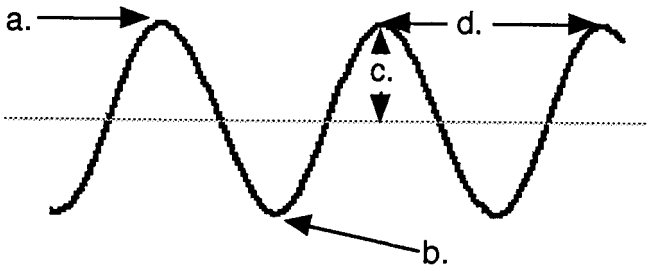
1. The highest point on a wave is the _____, while the lowest point is the _____.

2. The _____ of a wave is a measure of the amount of energy it carries.

3. The distance from one crest to the next crest is the _____.

4. The _____ is a measure of the number of waves that pass a point in a given amount of time.

5. The illustration to the right shows a wave. Label each part in the space below:



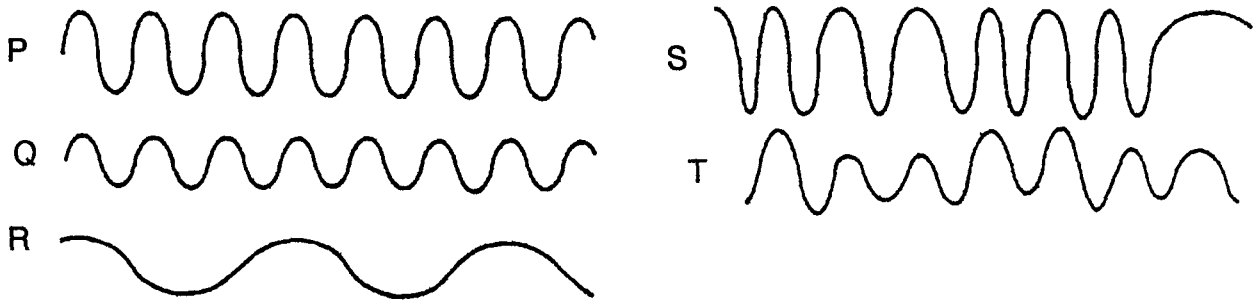
a. _____

b. _____

c. _____

d. _____

6. Use the five illustrations of waves drawn below to answer the following questions:



(a) Waves P and Q have the same _____, but wave P has twice the _____ of wave Q.

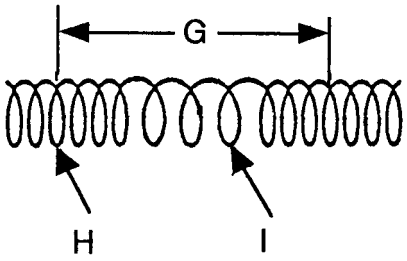
(b) Waves Q and R have the same _____, but wave R has twice the _____ of wave Q.

(c) Wave _____ shows a steady frequency but changing amplitude.

(d) Wave _____ shows steady amplitude but a changing frequency.

(e) Waves _____ and _____ have a low amplitude and a steady frequency.

7. The following questions refer to the diagram to the right:



(a) Is this wave transverse or longitudinal?

(b) Letter H represents a _____ and letter I represents a _____.

(c) Letter G represents a _____.

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Anatomy of a Wave Worksheet

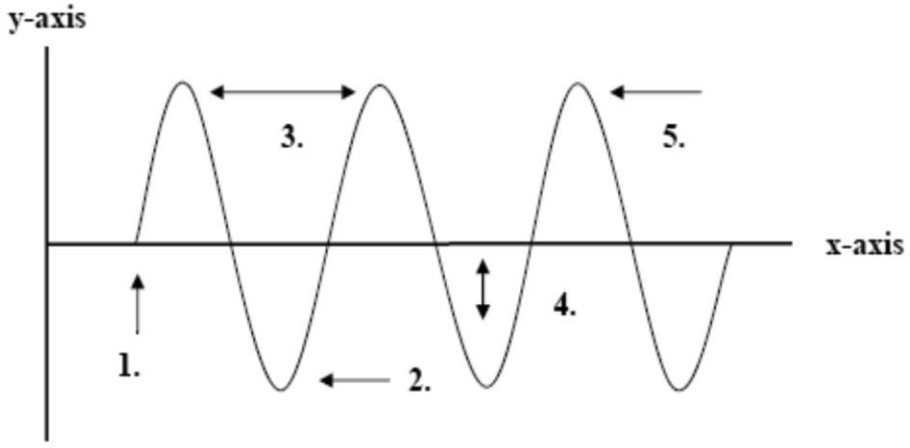
Objective: Identify the parts of a wave and draw your own diagrams of waves.

Background: Many types of waves exist, including electromagnetic waves and mechanical waves. Waves move in different ways and have different properties.

Part 1

In the diagram below, identify the parts of a wave by using the provided definitions.

#____ = **crest**	The highest point of the wave above the line of origin.
#____ = **trough**	The lowest point of the wave below the line of origin.
#____ = **line of origin**	Signifies the original position of the medium.
#____ = **wavelength**	The distance between two consecutive crests.
#____ = **amplitude**	The distance from the line of origin to a crest or trough of a wave.



Part 2

On separate sheets of graph paper, draw four different waves with the following measurements. Label the parts and include the measurements.

wave #	crest	trough	wavelength
1	1 cm	1 cm	2 cm
2	3.5 cm	3.5 cm	2.5 cm
3	.5 cm	.5 cm	3 cm
4	2 cm	2cm	.5 cm

Concluding question: State which wave you think has the *highest frequency* and which might have the *lowest frequency*. Explain the reasons for your selections.