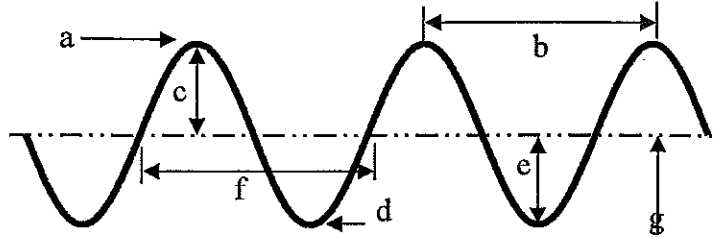


Name: \_\_\_\_\_

Date: \_\_\_\_\_ Block: \_\_\_\_\_

## WS 10-3 Waves and Wave Speed

1. The illustration below shows a series of transverse waves. Label each part in the space provided.



a:

e:

b:

f:

c:

g:

d:

Fill in the blanks:

2. Waves carry \_\_\_\_\_ from one place to another.

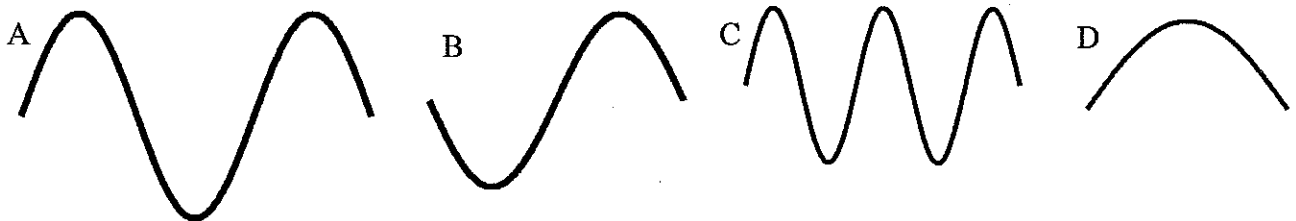
3. The highest point on a transverse wave is the \_\_\_\_\_ while the lowest part is the \_\_\_\_\_.

4. The \_\_\_\_\_ is the height of the wave.

5. The distance from one crest to the next is the \_\_\_\_\_.

6. Below are a number of series of waves.

Underneath each diagram write the numbers of waves in the series.



a. Which of the above has the biggest amplitude? \_\_\_\_\_

b. Which of the above has the shortest wavelength? \_\_\_\_\_

c. Which of the above has the longest wavelength? \_\_\_\_\_

7. Consider a wave generator that produces 10 pulses per second. The speed of the waves is 300. cm/s.
- What is the wavelength of the waves?
  - What happens to the wavelength if the frequency of pulses is increased?
8. A wave on Fraser Lake passes by two docks that are 40.0 m apart.
- If there is a crest at each dock and another three crests between the two docks, determine the wavelength.
  - If 10 waves pass one dock every 16.0 seconds, determine the period and frequency of the wave.
  - What is the speed of the wave?
9. The wavelength of a sound wave in this room is 1.13 m and the frequency is 301 Hz.
- What is the speed of the wave in the room?
  - If you double the frequency of the sound wave, determine its speed.