

**Transverse Waves**

Name \_\_\_\_\_ Date \_\_\_\_\_

Important Equations:



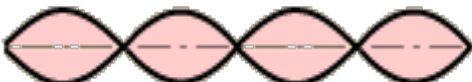

$$f = 1 / T$$

$$\lambda = 2L/n$$

$$v = f \lambda$$

Data and Calculations:

Stretched Length of the spring \_\_\_\_\_

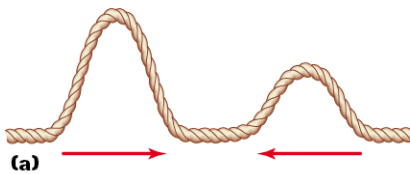
| Harmonic                                                                                                                 | Time (20) | Period | f | $\lambda$ | v |
|--------------------------------------------------------------------------------------------------------------------------|-----------|--------|---|-----------|---|
|  <span style="float: right;">2</span>   |           |        |   |           |   |
|  <span style="float: right;">3</span>   |           |        |   |           |   |
|  <span style="float: right;">4</span> |           |        |   |           |   |
|  <span style="float: right;">5</span> |           |        |   |           |   |
| Average Velocity                                                                                                         |           |        |   |           |   |

## Transverse Waves

Name \_\_\_\_\_ Date \_\_\_\_\_

### Observations:

1. Send a pulse down to your partner, describe three things you can observe about the reflected pulse.
2. Describe the motions or actions that you could change in order to:
  - a) increase the frequency
  - b) increase the wavelength
  - c) increase the amplitude
  - d) increase the speed



3. Have each partner send a pulse at the same time. Try to time it so that the two pulses meet near the middle of the spring.
  - a) describe the result of two pulses meeting “in Phase”