

Student Name:

### Wave Type Key

Do the following problems, sketching and writing your answers.

**a. The crest of an ocean wave that has an amplitude of 1 meter intersects another wave crest with an amplitude of .75 meter. What is the resulting amplitude? Sketch this and show your calculations.**

$$1 \text{ m crest} + .75 \text{ m crest} = 1.75 \text{ m crest}$$

**b. The crest of a wave with an amplitude of 2 meters intersects the trough of a wave with an amplitude of 1.3 meters. What is the resulting amplitude?**

$$2 \text{ m crest} - 1.3 \text{ m trough} = .7 \text{ m crest}$$