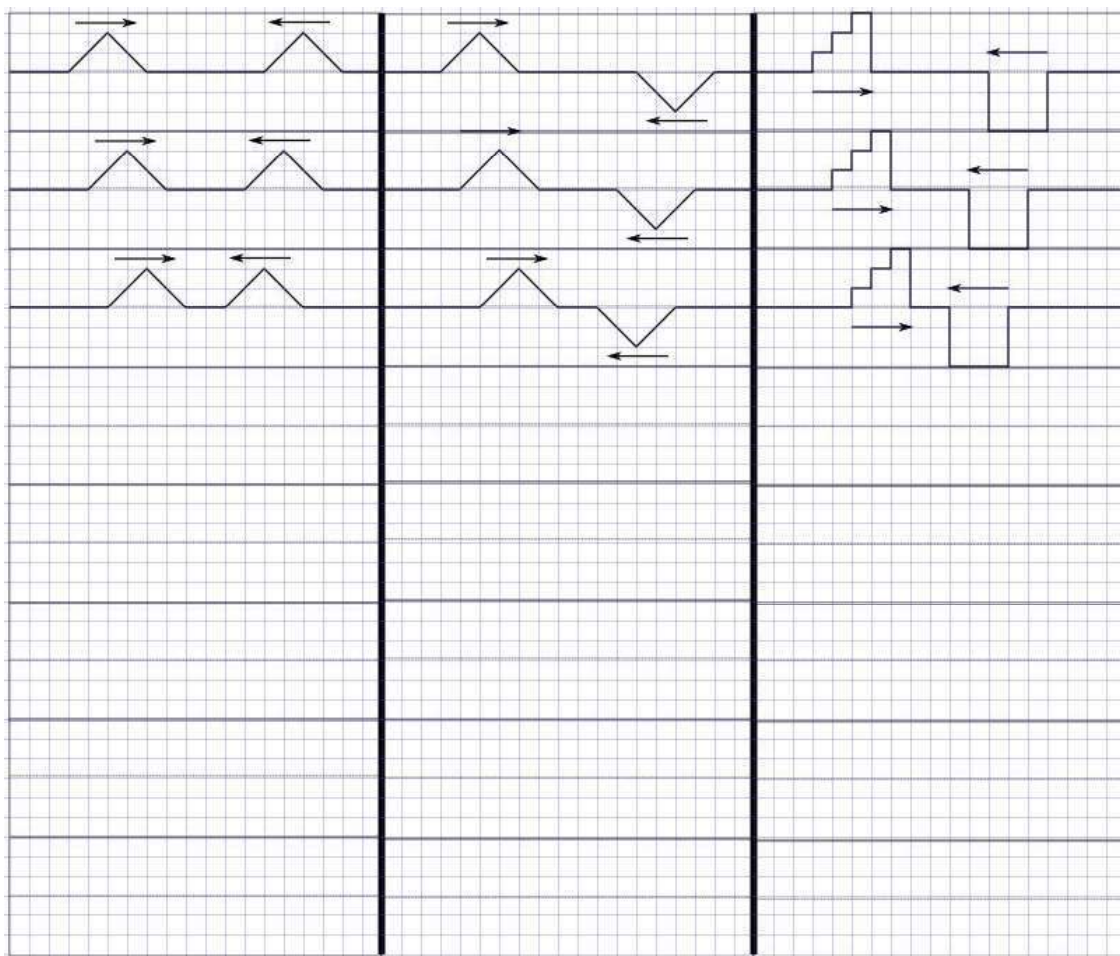NAME _____   DATE _____

Scenario

A pair of pulses travels toward each other at equal speeds. The composite wave forms as they pass through each other and interfere are shown at 1-second intervals.
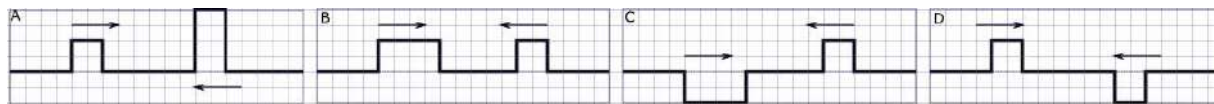
Using Representations

PART A: Sketch a construction for the two wave pulses in each column. Each pulse travels at one square per second.

Argumentation

Rectangular transverse wave pulses are traveling toward each other along a string. The grids shown in the background are identical, and the pulses vary in height and length. The pulses will meet and interact soon after they are in the positions shown.

Rank the maximum amplitude of the string at the instant the positions of the centers of the two pulses overlap. (Include <, >, or = to clarify your ranking.)

Greatest amplitude _____   _____   _____   _____ Least amplitude

Explain your reasoning.

_____

_____

_____

_____

_____

_____

_____

_____

_____