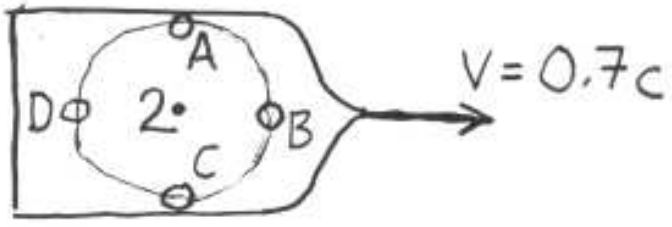
NAME_____

3. A spaceship moves from left to right with speed $v = 0.7c$ with respect to an observers at rest with respect to earth; one observer #2 is on the spaceship. The observers at rest with rest with respect to earth conclude that the four events A, B, C, and D occurred simultaneously, and, they conclude that those events occurred on the perimeter of a circle surrounding observer #2, as shown below.



For the following questions, choose only one answer: 0 pts if no answer picked, +5 points if one correct answer picked; -2 points if one incorrect answer picked, -5 points if more than one answer picked.

According to Observer 2:

(a) Event B and Event D occur simultaneously

(b) Event B precedes Event D

(c) Event D precedes Event B

(d) Need more information to judge the relative occurence in time of events B and D

According to Observer 2:

(e) Event A and Event C occur simultaneously

(f) Event A precedes Event C

(g) Event C precedes Event A

(h) Need more information to judge the relative occurence in time of events A and C

According to Observer 2:

(i) Event A and Event B occur simultaneously

(j) Event A precedes Event B

(k) Event B precedes Event A

(l) Need more information to judge the relative occurence in time of events A and B