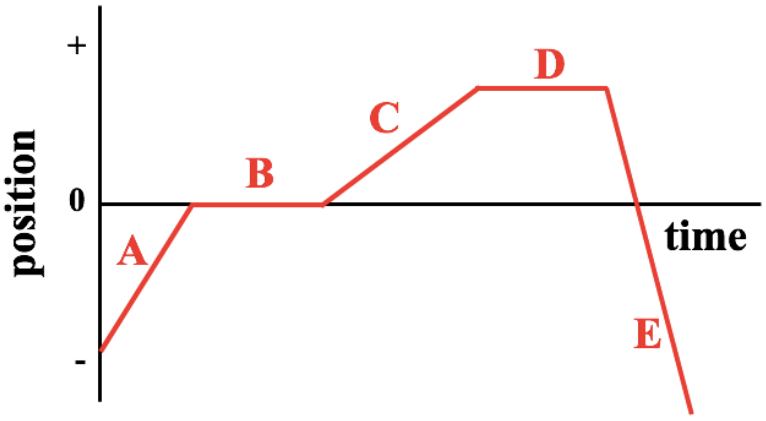
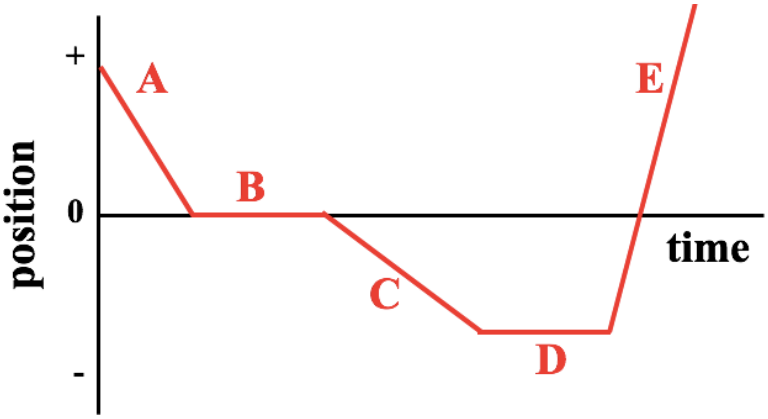
Position Time Graphs
Conceptual Analysis

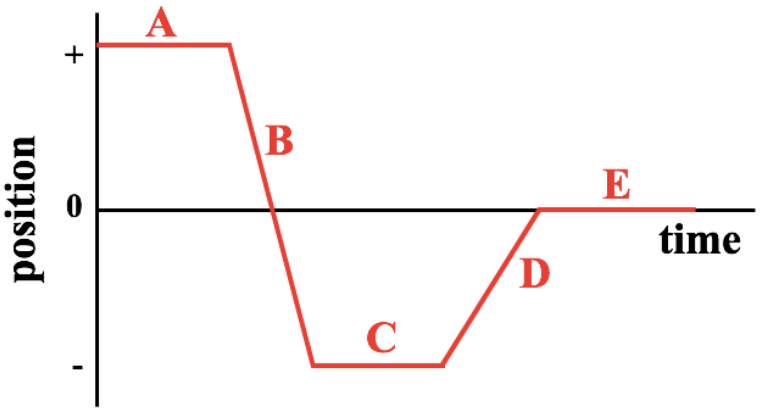
Activity 1: Words and Graphs
Question Group 1
Question #1
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object at rest?



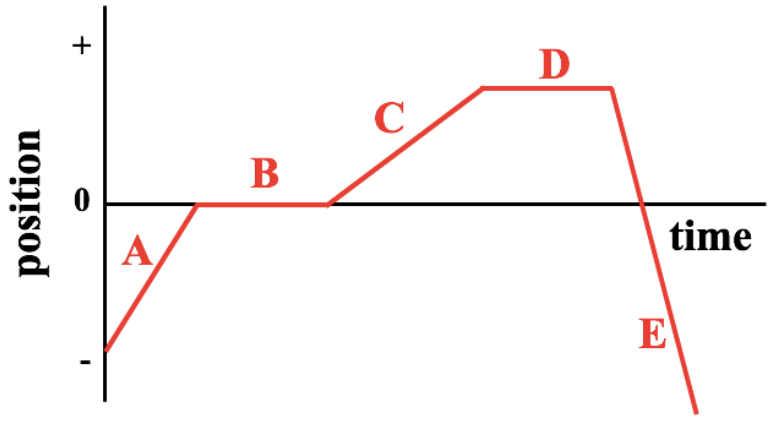
Question #2
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object at rest?



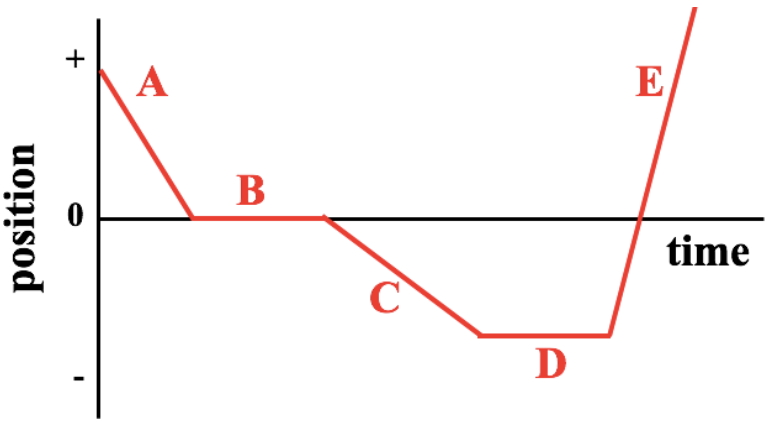
Question #3
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object at rest?



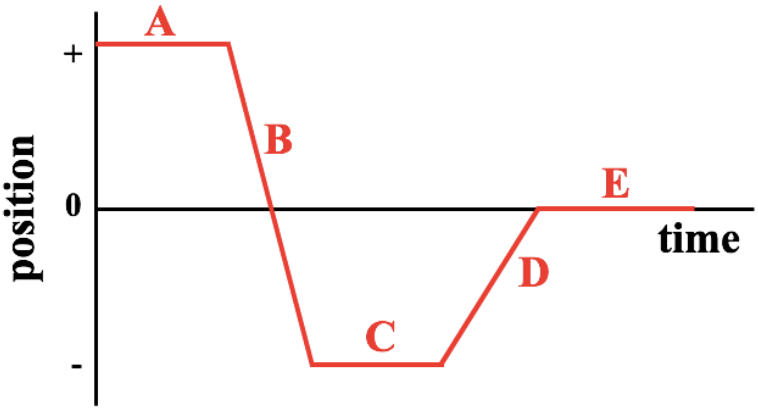
Question Group 2
Question #4
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object moving with a constant speed?



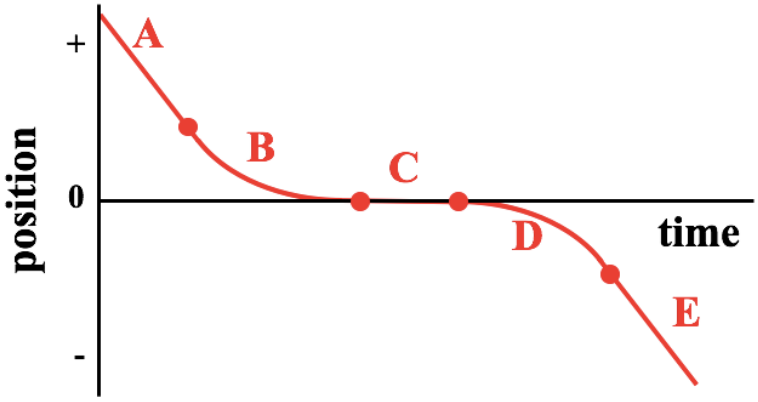
Question #5
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object moving with a constant speed?



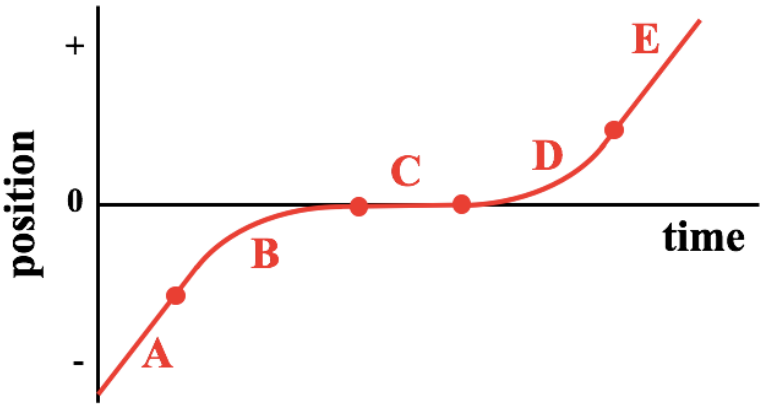
Question #6
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object moving with a constant speed?



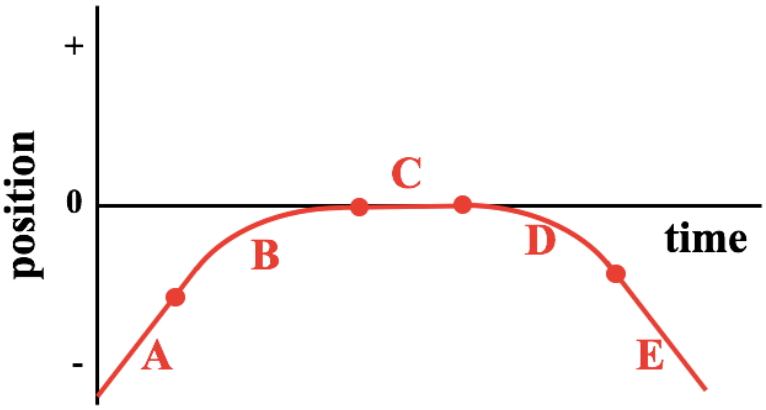
Question Group 3
Question #7
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) does the object have a changing velocity?



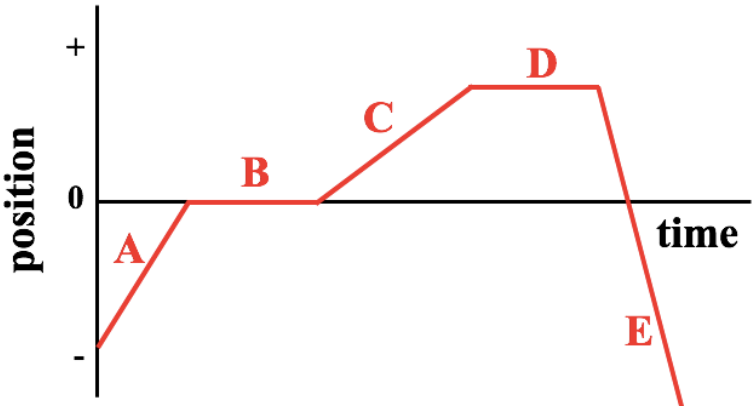
Question #8
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) does the object have a changing velocity?



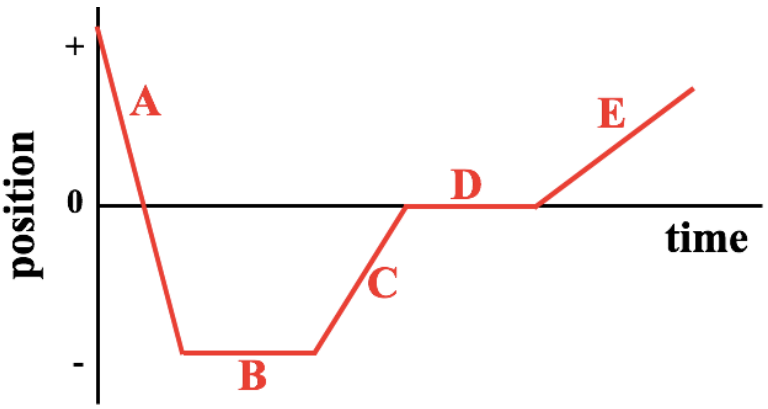
Question #9
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) does the object have a changing velocity?



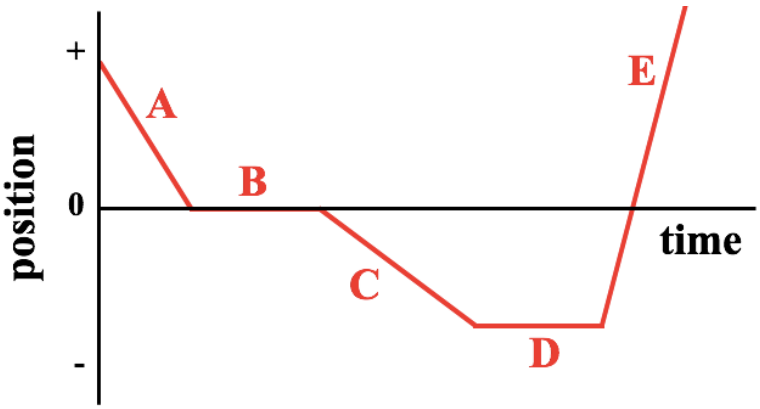
Question Group 4
Question #10
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) does the object have a positive velocity?



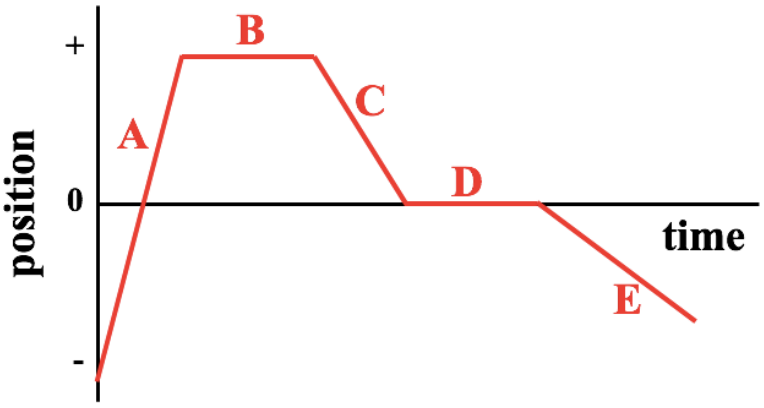
Question #11
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) does the object have a positive velocity?



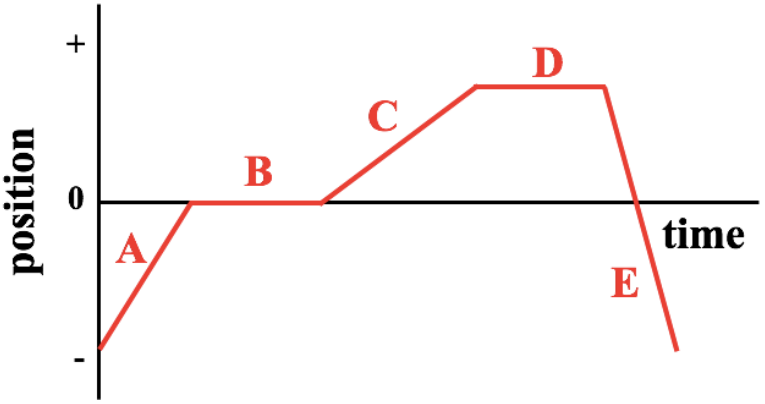
Question #12
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) does the object have a negative velocity?



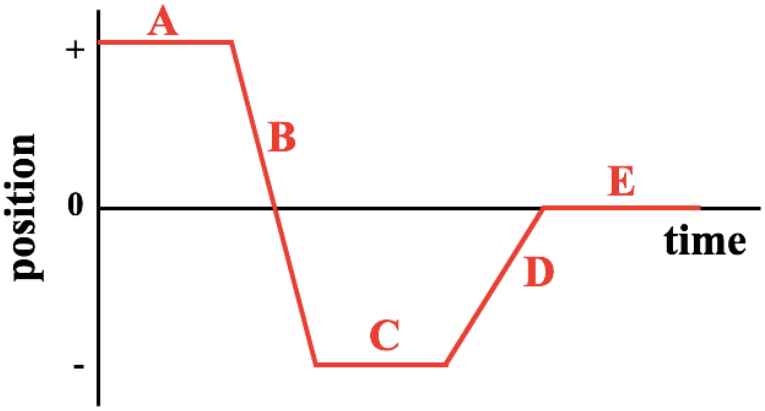
Question #13
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) does the object have a negative velocity?



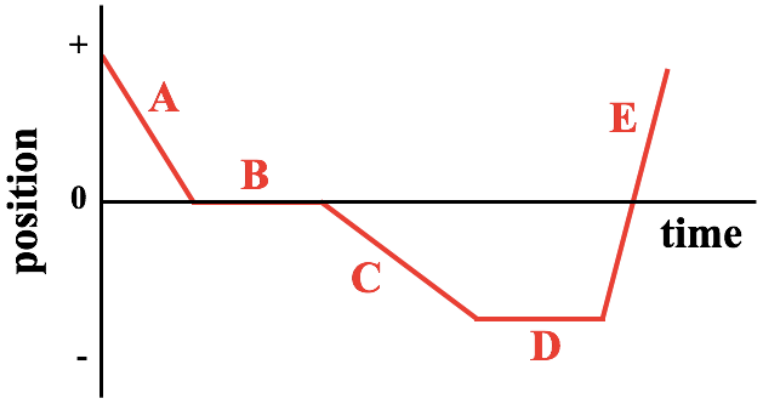
Question Group 5
Question #14
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object moving away from its starting point?



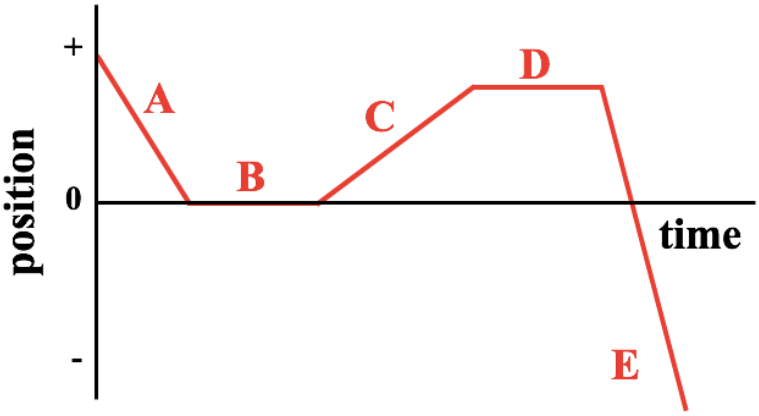
Question #15
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object moving away from its starting point?



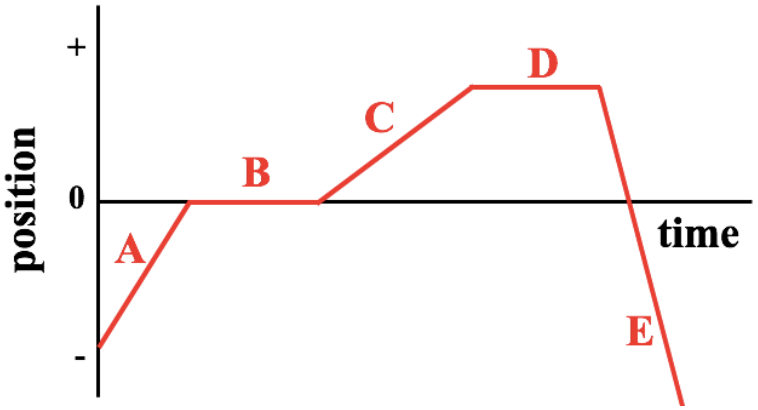
Question #16
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object moving towards its starting point?



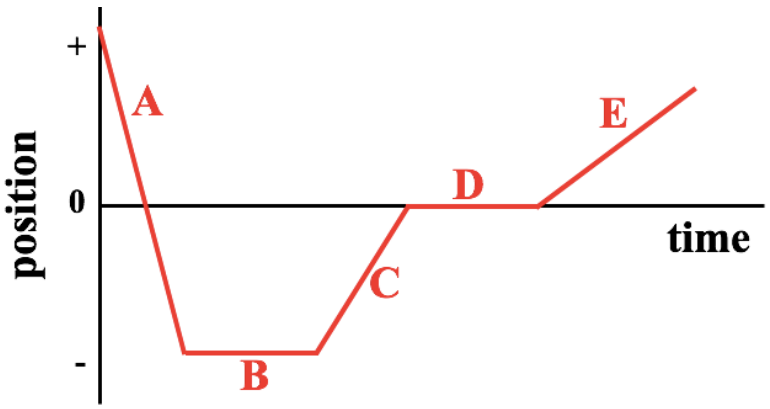
Question #17
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage(s) is the object moving towards its starting point?



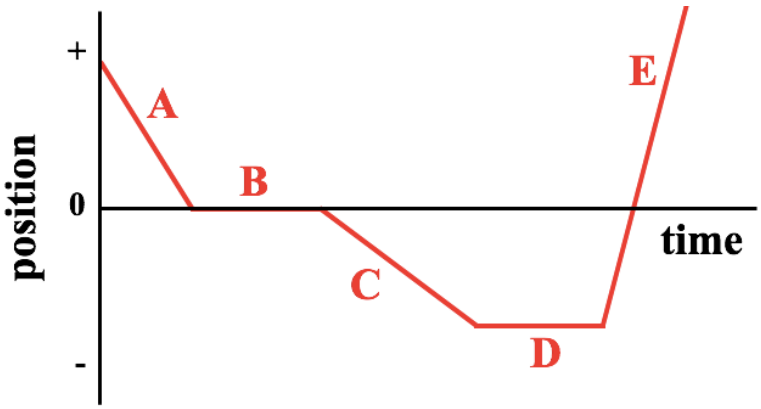
Question Group 6
Question #18
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage is the object moving with the greatest speed?



Question #19
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage is the object moving with the greatest speed?

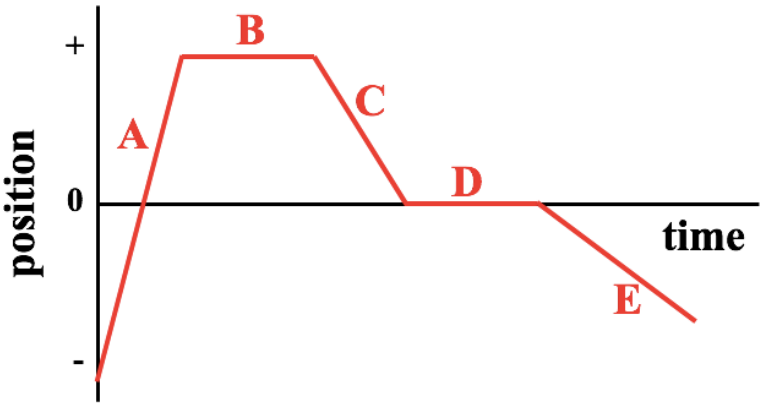


Question #20
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage is the object moving with the smallest speed?

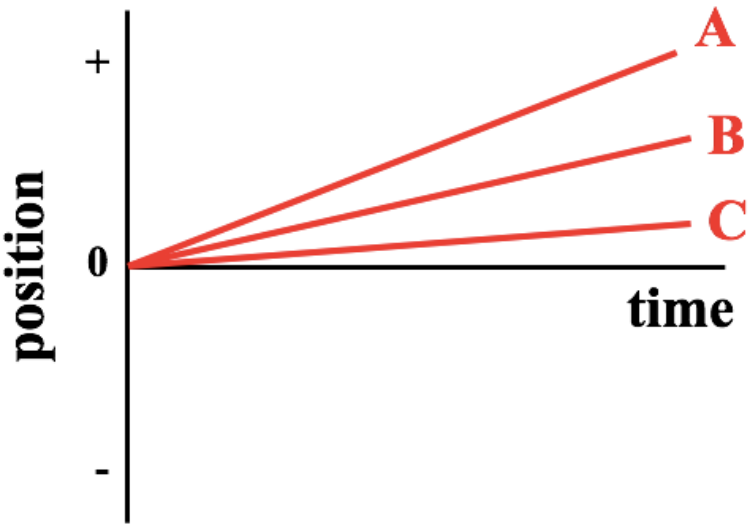


Question #21

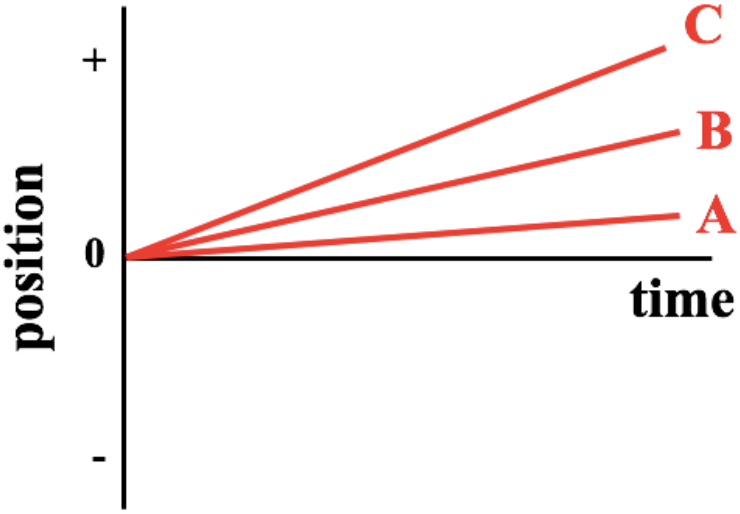
Five stages - labeled A, B, C, D, and E - of an object's motion are represented by the position-time graph below. During which stage is the object moving with the smallest speed?



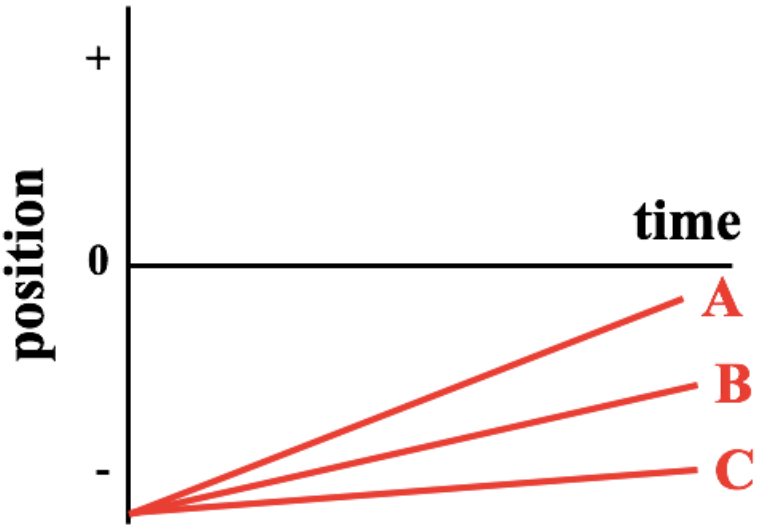
Activity 2: Ranking Tasks
Question Group 7
Question #22
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



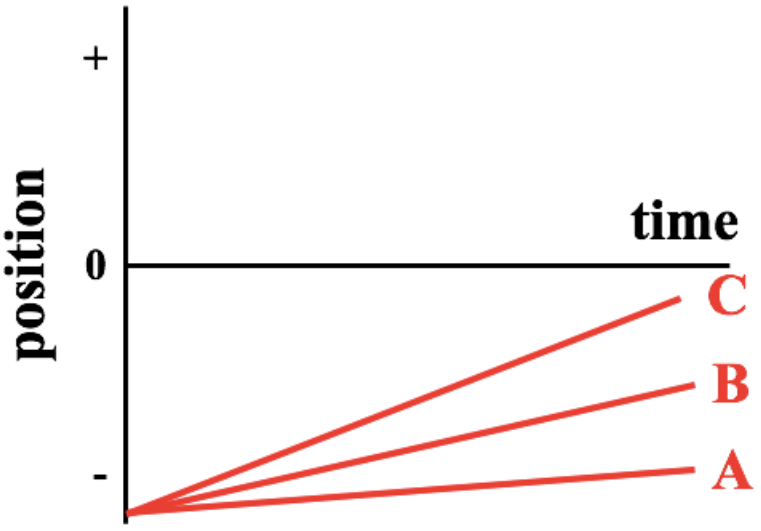
Question #23
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



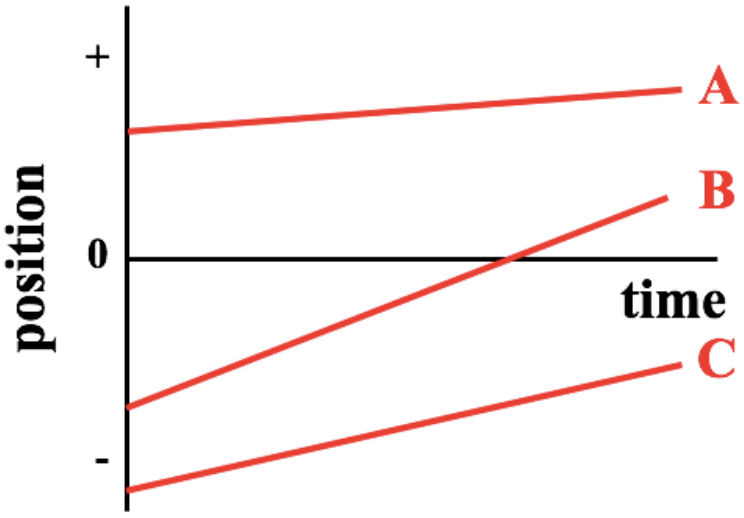
Question #24
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



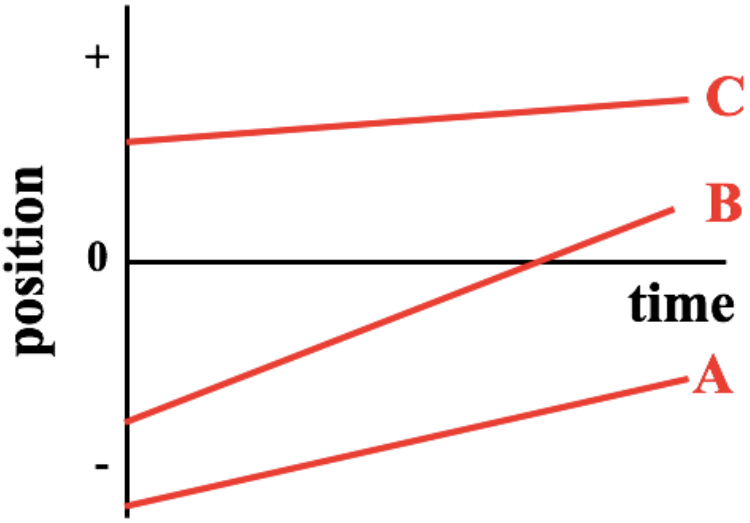
Question #25
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



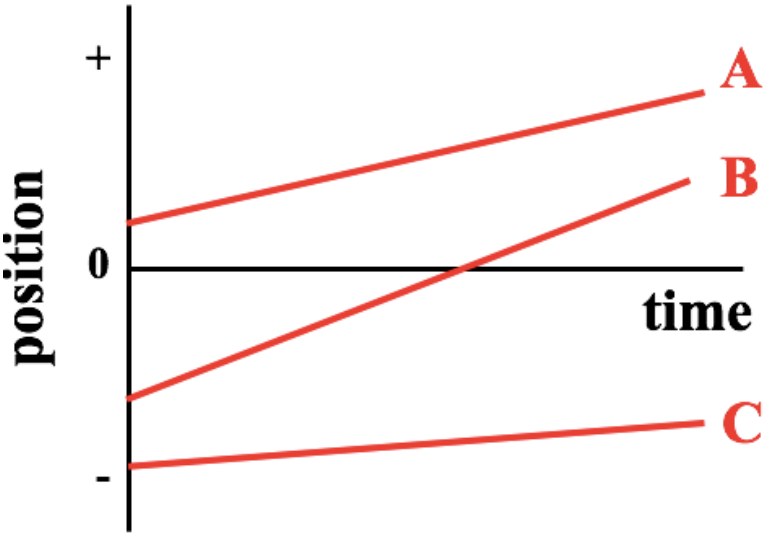
Question Group 8
Question #26
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



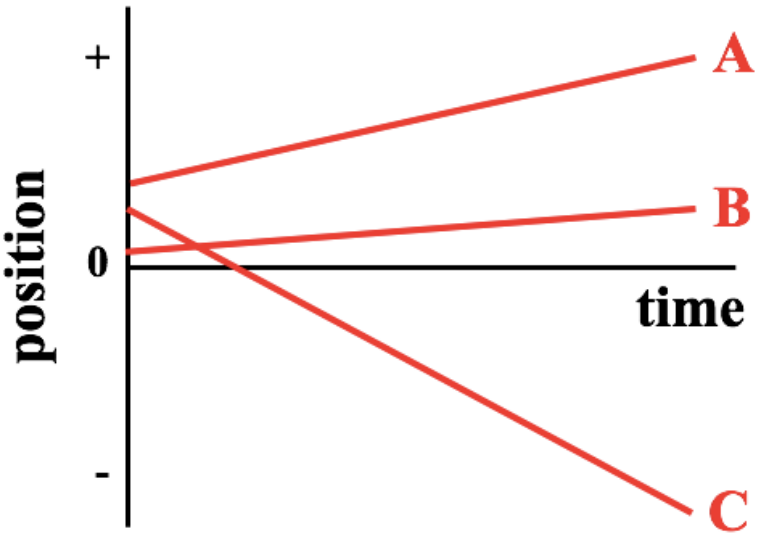
Question #27
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



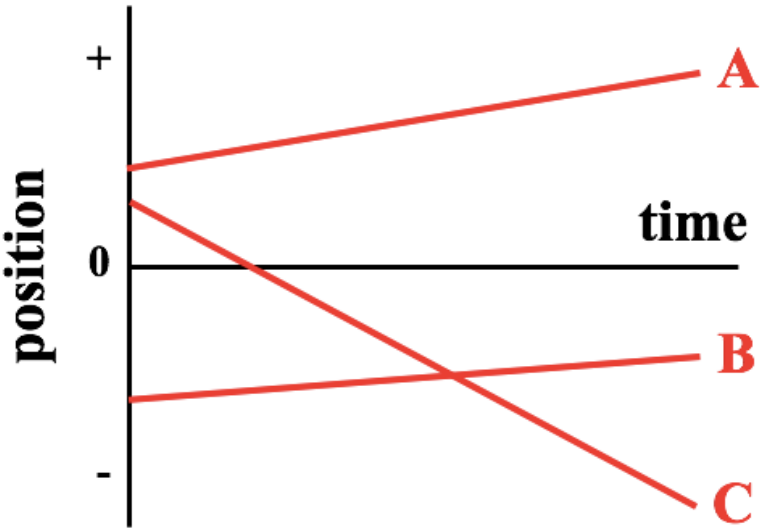
Question #28
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



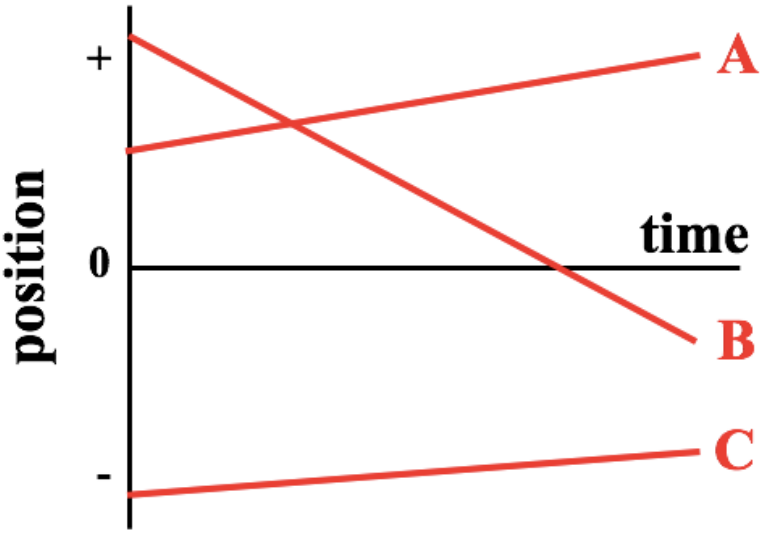
Question Group 9
Question #29
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



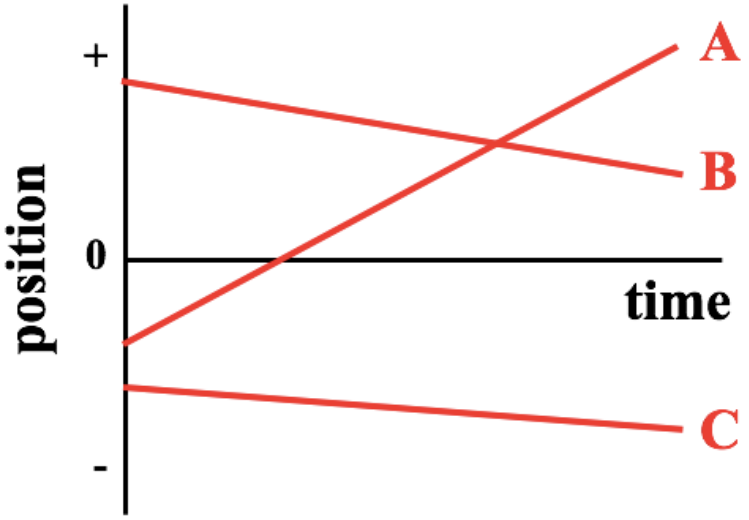
Question #30
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



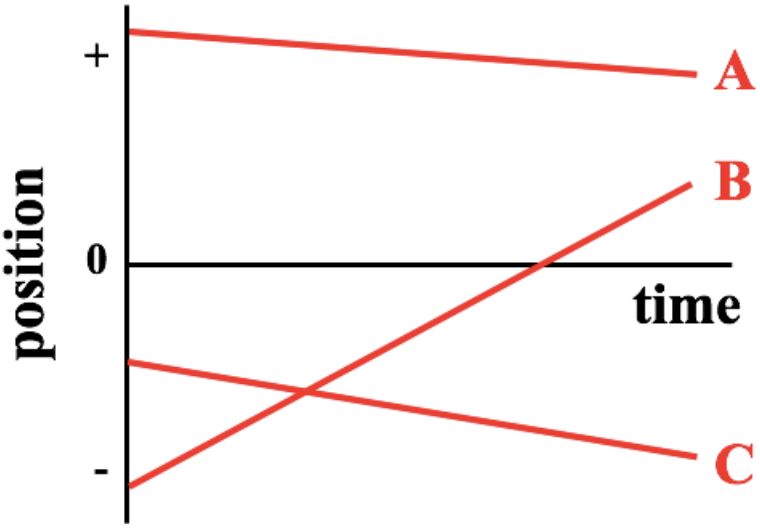
Question #31
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.



Question Group 10
Question #32
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.

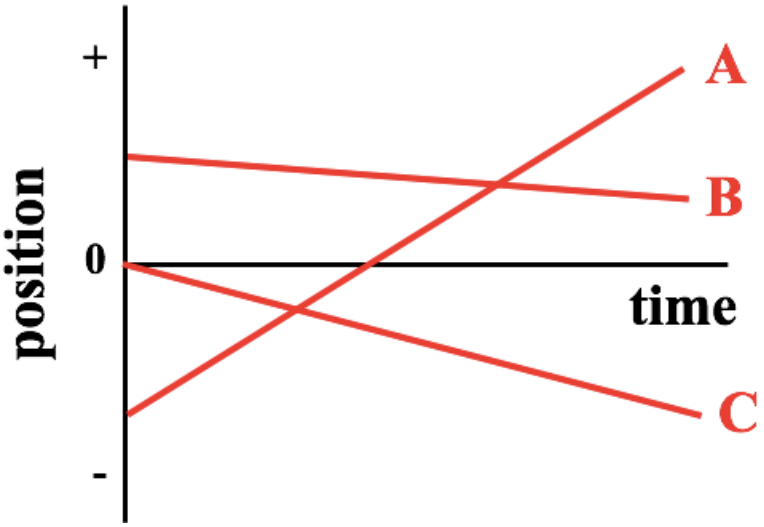


Question #33
The motions of Objects A, B, and C are represented on a position-time graph. Observe their lines and rank the speeds of Objects A, B, and C from slowest to fastest.

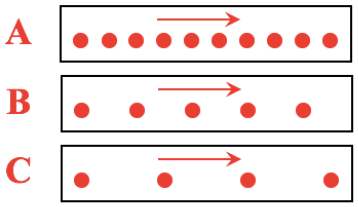


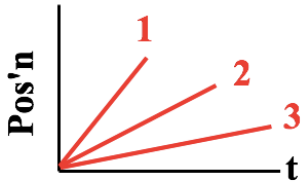
Question #34

The motions of Objects A, B, and C are represented on a position-time graph. Observe the lines and rank the speeds of Objects A, B, and C from slowest to fastest.



Activity 3: Dots and Graphs
Question Group 11
Question #35
Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

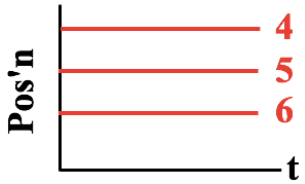




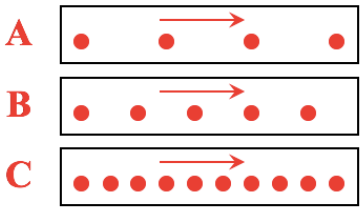
A matches graph:

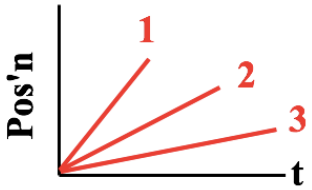
B matches graph:

C matches graph:



Question #36
Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

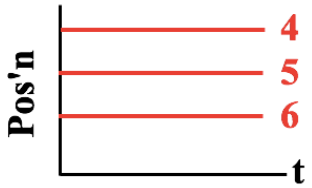




A matches graph:

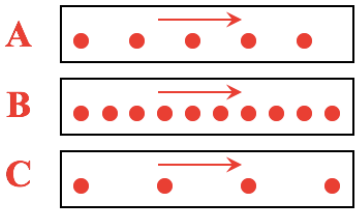
B matches graph:

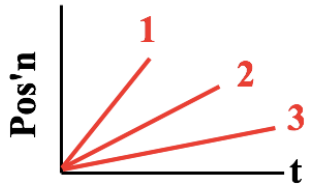
C matches graph:



Question #37

Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

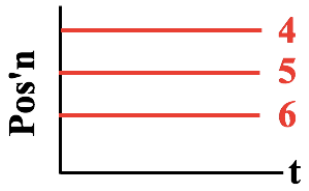




A matches graph:

B matches graph:

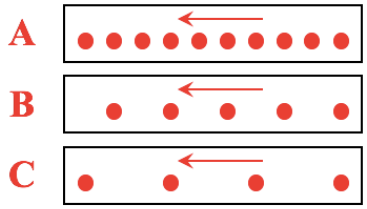
C matches graph:

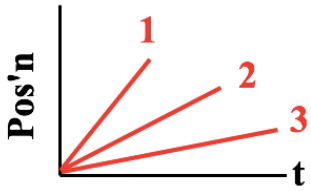


Question Group 12

Question #38

Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

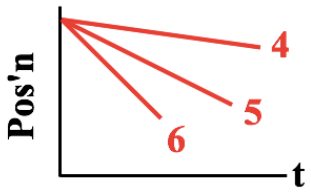




A matches graph:

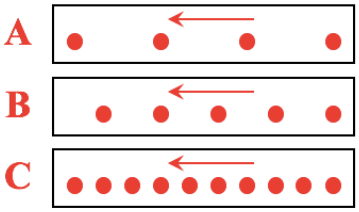
B matches graph:

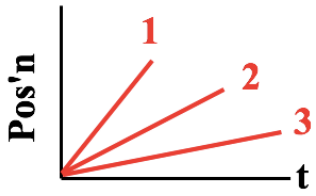
C matches graph:



Question #39

Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

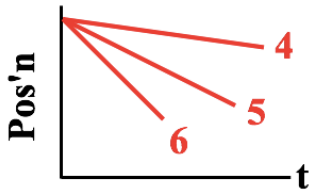




A matches graph:

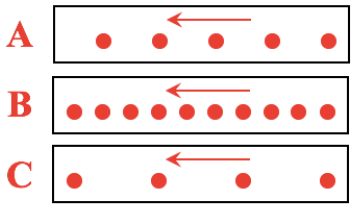
B matches graph:

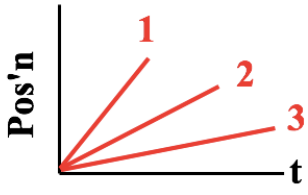
C matches graph:



Question #40

Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

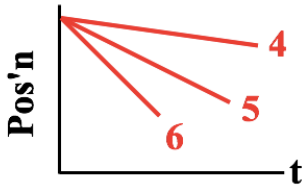




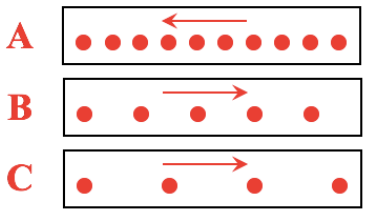
A matches graph:

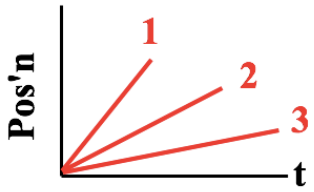
B matches graph:

C matches graph:



Question Group 13
Question #41
Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

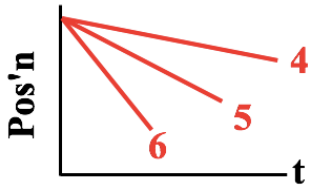




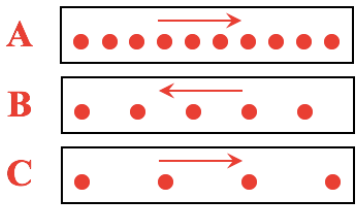
A matches graph:

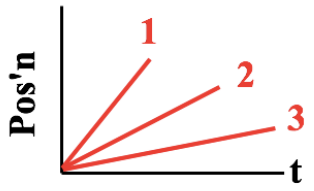
B matches graph:

C matches graph:



Question #42
Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

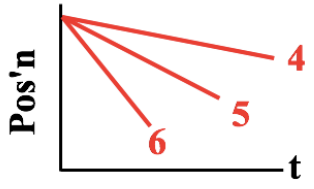




A matches graph:

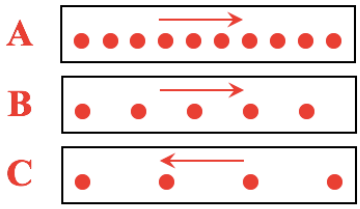
B matches graph:

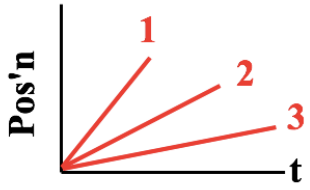
C matches graph:



Question #43

Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

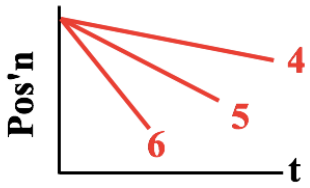




A matches graph:

B matches graph:

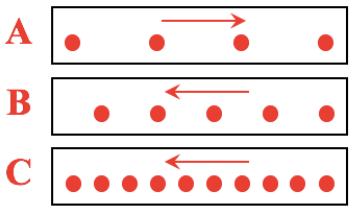
C matches graph:

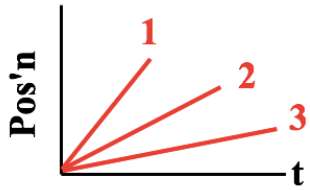


Question Group 14

Question #44

Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

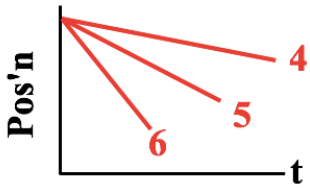




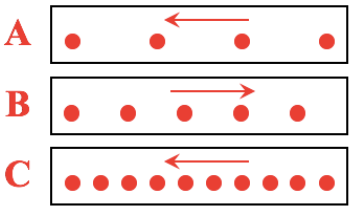
A matches graph:

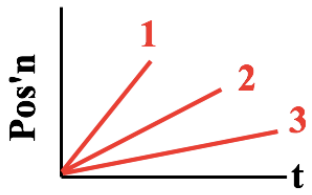
B matches graph:

C matches graph:



Question #45
Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.

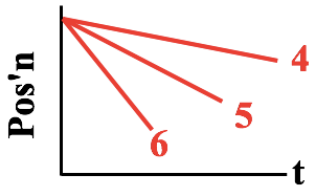




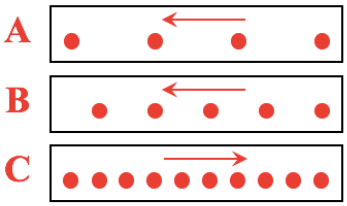
A matches graph:

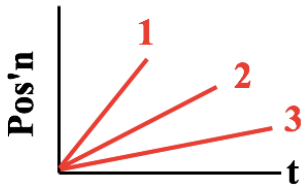
B matches graph:

C matches graph:



Question #46
Consider the dot diagrams below for Objects A, B, and C. The arrow represents the direction of travel. Match the motion of Objects A, B, and C to one of the lines on the graph.





A matches graph:

B matches graph:

C matches graph: