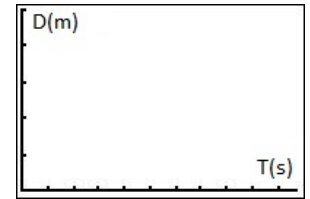


# Building Understanding for Graphs with the CBR

## Student Activity Sheet

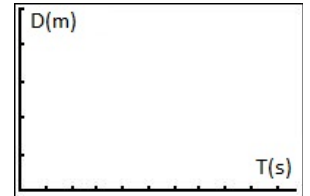
Connect a CBR to either a TI-84 or the TI-84 Emulator. Project the screen on a large screen or interactive whiteboard.

Situation 1. A student will produce a distance-time graph by starting at about 0.5 meters from the CBR and walk away from the CBR when the CBR begins collecting data. Make a sketch of the graph that is produced.



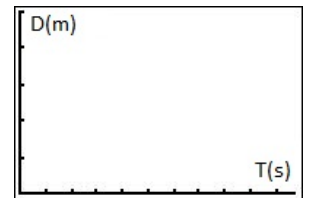
Walking Away from the CBR

Situation 2. Another student will produce a distance-time graph by starting at about 0.5 meters from the CBR and walk away from the CBR at a slower speed than situation 1 when the CBR begins collecting data. Make a sketch of graph that is produced.



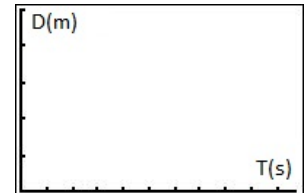
Walking Away from the CBR at a slower speed than Situation 1

Situation 3. Another student will produce a distance-time graph by starting at about 0.5 meters from the CBR and walk away from the CBR at a faster speed than Situation 1 when the CBR begins. Make a sketch of the graph that is produced.



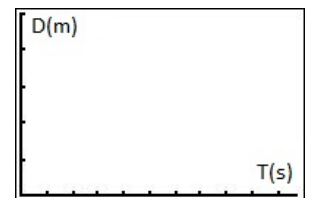
Walking Away from the CBR at a faster speed than Situation 1

Situation 4. Another student will produce a distance-time graph by starting about 5-6 meters from the CBR and walk toward the CBR when the CBR begins collecting data. Make a sketch of the graph produced.



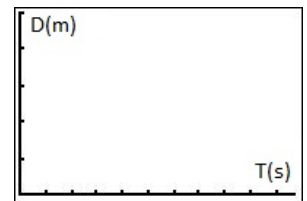
Walking Toward the CBR

Situation 5. Another student will produce a distance-time graph by starting at about 5-6 meters that is less steep than Situation 4. Describe how the student must move to produce this new graph.



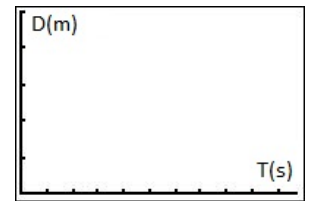
Making a less steep line than Situation 4

Situation 6. Another student will produce a distance-time graph by starting at 3 meters from the CBR and try to stand absolutely still when the CBR begins to collect data. Make a sketch of the graph produced.



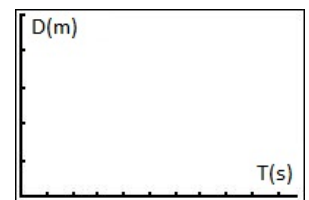
Standing at one location

Situation 7. Another student will produce a distance-time graph by starting at 2 meters from the CBR, walking away from the CBR slowly for 4 seconds and then stop for the rest of the time. Make a sketch of the graph produced.



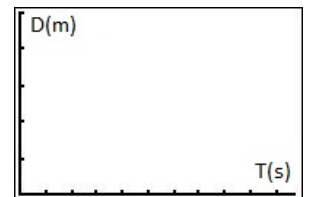
Walking away from the CBR and stopping.

Situation 8. Another student is to produce a distance-time graph by starting and staying at 4 meters for 3 seconds and then walk slowly toward the CBR. Make a sketch of the graph produced.



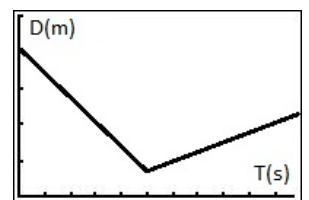
Standing still and then walking toward the CBR

Situation 9. Another student will produce a distance-time graph by starting at 1 meters from the CBR, walking away from the CBR slowly for 3 seconds, stopping for 3 seconds and then walking backwards for the rest of the time. Make a sketch of the graph produced.



Walking away, stopping and walking backwards

Situation 10. Another student will produce a distance-time graph as illustrated at the right.



How will you produce this graph?