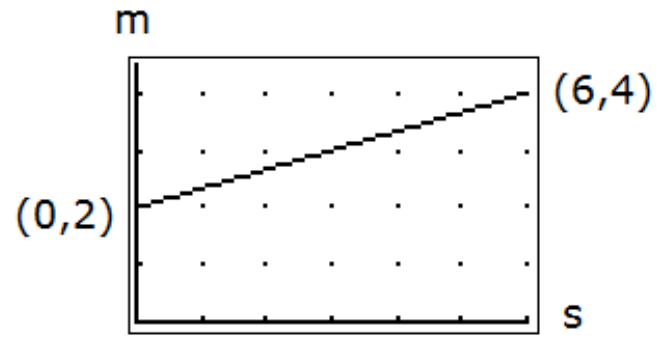


Assignment

1. The graph at the right was created by a student walking in front of a motion detector. Is the student walking away from the motion detector or toward the motion detector? Explain your reasoning. Describe where the student started their walk and where their walk ended. Describe the length of time needed to produce the graph. Describe how fast the student walked.



$$0 \leq s \leq 6 \text{ and } 0 \leq m \leq 4.5$$

2. Write out a chart that describes the time and position of the student from the motion detector for the graph in problem 1.

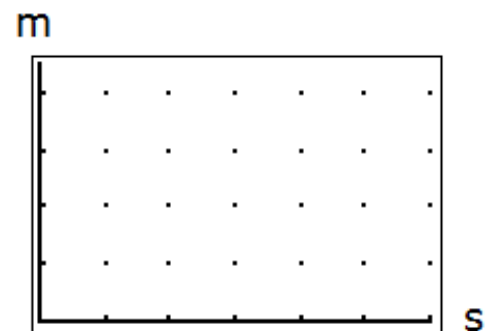
time (s)	0	1	2	3	4	5	6
distance (m)							

3. Create a chart that fits this situation:

The student starts at the 4.5 meters from the motion detector and walks at a steady rate of 0.5 meters per second toward the meter.

time (s)	0	1	2	3	4	5	6
distance (m)							

4. Draw the graph that matches the table and situation described in problem 3.

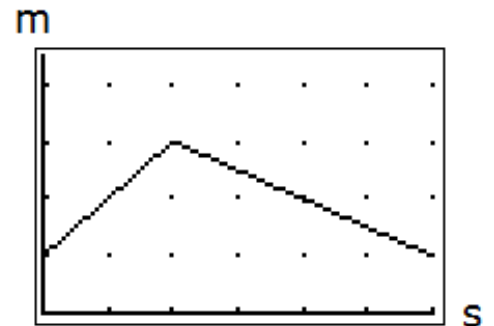


$$0 \leq s \leq 6 \text{ and } 0 \leq m \leq 4.5$$

5. The table below describes the time and position of a student as they walk in front of a motion detector. Write a set of walking instructions that fits this situation.

time (s)	0	1	2	3	4	5	6
distance (m)	3.5	3.75	4	4.25	4.5	4.75	5

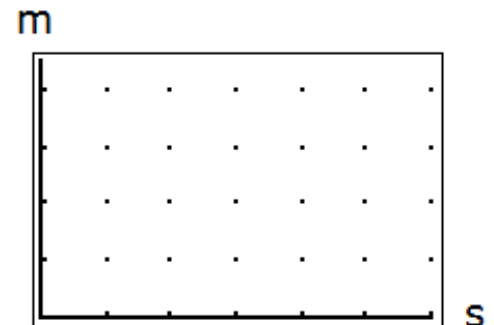
6. The graph at the right was produced by one student walking in front of a motion detector. Write a set of walking instructions that fits this situation.



7. Create a table that describes the time and position of the walker in problem 6.

time (s)	0	1	2	3	4	5	6
distance (m)							

8. A student starts at a position 1 meter from the motion detector and walks away from the motion detector at a constant rate of $\frac{1}{2}$ meter per second. Create the graph that this student would create.



9. The graph at the right shows the amount of liquid in a 4-gallon container. Write a set of directions how to fill or empty the container to produce this graph.

