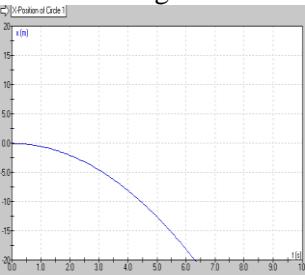
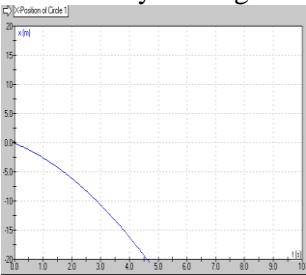
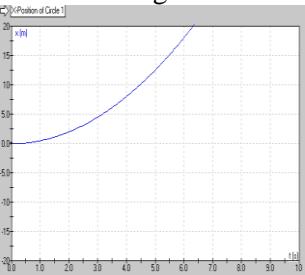
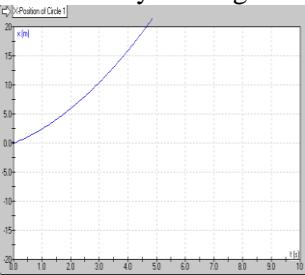
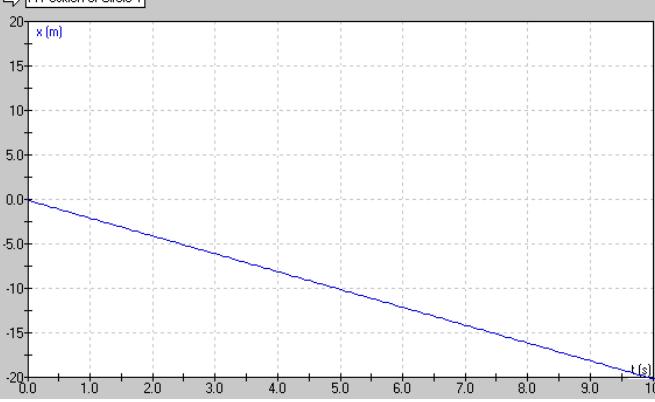
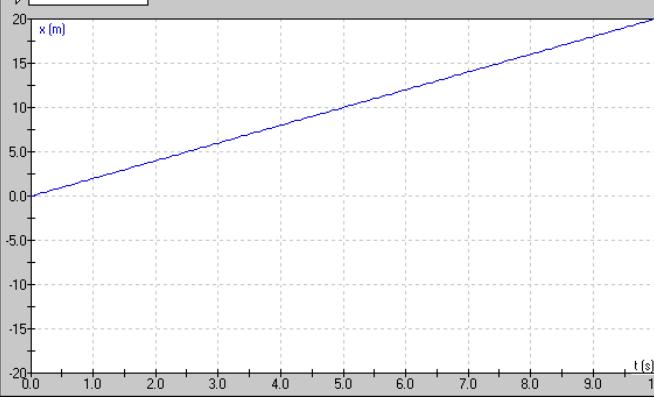
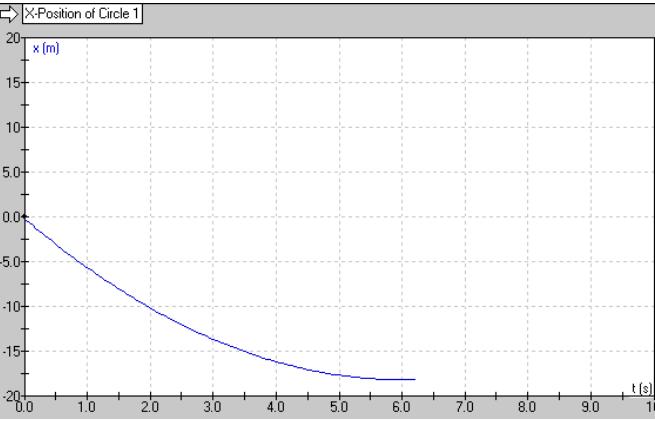
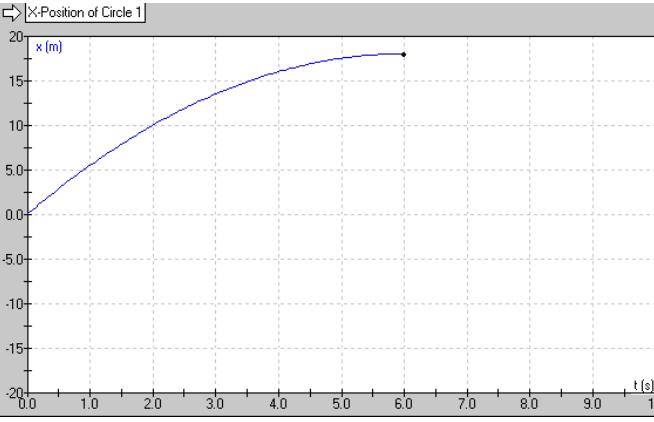


Tobin's Spirit Guide to Graphs of Motion

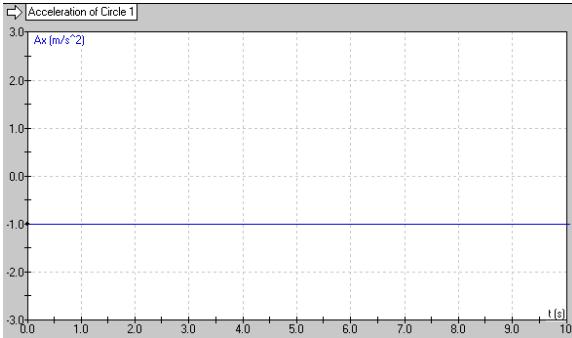
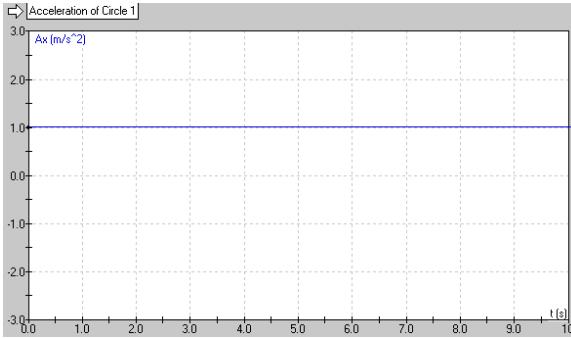
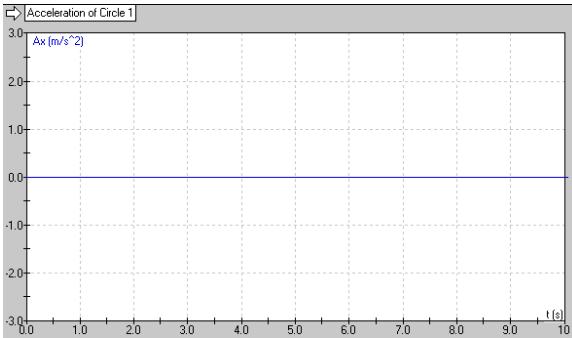
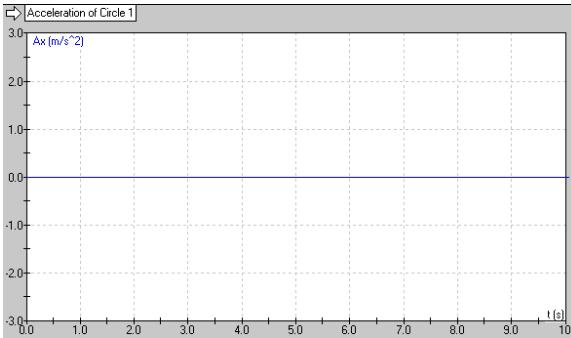
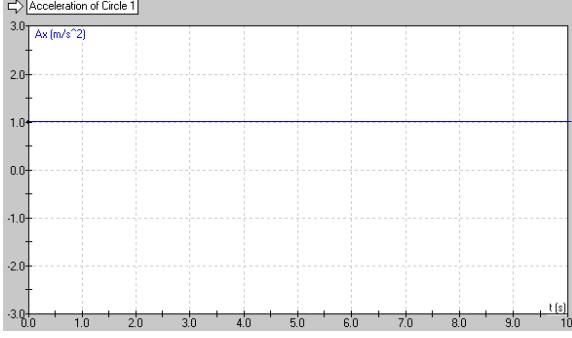
Position Graphs:

	Moving to the Left (Negative Velocity)	Moving to the Right (Positive Velocity)
Speeding Up (Going faster and faster)	<p>Negative velocity means negative slope. (The graph goes <u>down</u> as you move left to right) Speeding up means the graph gets steeper and steeper.</p>  <p>Accelerating from rest</p>  <p>Already moving</p>	<p>Positive velocity means positive slope. (The graph goes <u>up</u> as you move left to right) Speeding up means the graph gets steeper and steeper.</p>  <p>Accelerating from rest</p>  <p>Already moving</p>
Constant Velocity	<p>Negative velocity means negative slope. (The graph goes <u>down</u> as you move left to right) Constant speed means the slope doesn't change – it's a straight line.</p> 	<p>Positive velocity means positive slope. (The graph goes <u>up</u> as you move left to right) Constant speed means the slope doesn't change – it's a straight line.</p> 
Slowing Down (Going slower and slower)	<p>Negative velocity means negative slope. (The graph goes <u>down</u> as you move left to right) Slowing down means the graph gets less and less steep.</p> 	<p>Positive velocity means positive slope. (The graph goes <u>up</u> as you move left to right) Slowing down means the graph gets less and less steep.</p> 

Velocity Graphs:

	Moving to the Left (Negative Velocity)	Moving to the Right (Positive Velocity)
Speeding Up (Going faster and faster)	<p>Moving to the left means the velocity is negative. Negative velocity graphs are all below zero. Speeding up means that as time goes on, the graph moves away from zero.</p> <p>Accelerating from rest</p> <p>Already moving</p>	<p>Moving to the right means the velocity is positive. Positive velocity graphs are all above zero. Speeding up means that as time goes on, the graph moves away from zero.</p> <p>Accelerating from rest</p> <p>Already moving</p>
Constant Velocity	<p>Moving to the left means the velocity is negative. Negative velocity graphs are all below zero. Constant velocity means the graph doesn't move up or down – it's a horizontal line.</p>	<p>Moving to the right means the velocity is positive. Positive velocity graphs are all above zero. Constant velocity means the graph doesn't move up or down – it's a horizontal line.</p>
Slowing Down (Going slower and slower)	<p>Moving to the left means the velocity is negative. Negative velocity graphs are all below zero. Slowing down means that as time goes on, the graph moves toward zero.</p>	<p>Moving to the right means the velocity is positive. Positive velocity graphs are all above zero. Slowing down means that as time goes on, the graph moves toward zero.</p>

Acceleration Graphs:

	Moving to the Left (Negative Velocity)	Moving to the Right (Positive Velocity)
Speeding Up (Going faster and faster)	<p>In order to speed up, the acceleration and the velocity must be in the same direction. If it is moving <u>left</u> and going faster and faster, the acceleration must also be to the <u>left</u>, and therefore <u>negative</u>.</p> 	<p>In order to speed up, the acceleration and the velocity must be in the same direction. If it is moving <u>right</u> and going faster and faster, the acceleration must also be to the <u>right</u>, and therefore <u>positive</u>.</p> 
Constant Velocity	<p>If the velocity is constant, the acceleration is <u>zero</u>, regardless which way it is moving.</p> 	<p>If the velocity is constant, the acceleration is <u>zero</u>, regardless which way it is moving.</p> 
Slowing Down (Going slower and slower)	<p>In order to slow down, the acceleration and the velocity must be in the opposite directions. If it is moving <u>left</u> and going slower and slower, the acceleration then must be to the <u>right</u>, and therefore <u>positive</u></p> 	<p>In order to slow down, the acceleration and the velocity must be in the opposite directions. If it is moving <u>right</u> and going slower and slower, the acceleration then must be to the <u>left</u>, and therefore <u>negative</u></p> 