

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Chapter 4 Problem Wrap-Up Rubric

BLM 4-11

Categories	Level 1	Level 2	Level 3	Level 4
<b>Knowledge and Understanding</b> <ul style="list-style-type: none"> <li>• diagrams that include all information for parts a) and b)</li> <li>• for part a), accurate calculation of the arc length, including the formula used and concluding statement with correct units</li> <li>• for part b), development of the derivation asked for in the question</li> <li>• for technology use, the inclusion of features listed in the question, smooth operation of the animation, and obvious start, stop, and reset controls</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrates little understanding of arc length, and development of the derivation in part b)</li> <li>• labelled diagrams that include some information for parts a) and b)</li> <li>• for technology use, the inclusion of two or three of the features listed in the question, smooth operation of the animation, and obvious start, stop, and reset controls</li> <li>• solutions are somewhat accurate</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrates some understanding of arc length, and development of the derivation in part b)</li> <li>• labelled diagrams that include most information for parts a) and b)</li> <li>• for technology use, the inclusion of three or four of the features listed in the question, smooth operation of the animation, and obvious start, stop, and reset controls</li> <li>• solutions to most parts of the question are provided and mostly accurate</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrates considerable understanding of arc length, and development of the derivation in part b)</li> <li>• neat, labelled diagrams that include all information for parts a) and b)</li> <li>• for technology use, the inclusion of at least five of the features listed in the question, smooth operation of the animation, and obvious start, stop, and reset controls</li> <li>• solutions to most parts of the question are provided and are all accurate</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrates thorough understanding of arc length, and development of the derivation in part b)</li> <li>• neat, labelled diagrams that include all information for parts a) and b)</li> <li>• for technology use, the inclusion of at least five of the features listed in the question, smooth operation of the animation, and obvious start, stop, and reset controls</li> <li>• solutions to all parts of the question are provided and are all accurate</li> </ul>
<b>Thinking</b> <ul style="list-style-type: none"> <li>• Prepares a plan to solve the problem.</li> <li>• Carries out the plan.</li> </ul>	<ul style="list-style-type: none"> <li>• needs extensive assistance to begin organizing a plan and needs some steps to follow</li> </ul>	<ul style="list-style-type: none"> <li>• needs some assistance to organize and implement an effective strategy</li> </ul>	<ul style="list-style-type: none"> <li>• needs minimal assistance to organize and implement an effective strategy</li> </ul>	<ul style="list-style-type: none"> <li>• needs no assistance to organize and implement an effective strategy</li> </ul>
<b>Communication</b> <ul style="list-style-type: none"> <li>• clear explanations and full justifications</li> <li>• correct use of mathematical language</li> </ul>	<ul style="list-style-type: none"> <li>• does not clearly explain or justify solution</li> <li>• uses limited mathematical form</li> </ul>	<ul style="list-style-type: none"> <li>• explains and justifies solution somewhat</li> <li>• uses minimal mathematical form</li> </ul>	<ul style="list-style-type: none"> <li>• explains and justifies solution fully</li> <li>• uses good mathematical form</li> </ul>	<ul style="list-style-type: none"> <li>• explains, justifies and shows insight into the complexities of the solution</li> <li>• uses excellent mathematical form</li> </ul>