

**Task: Abbey Leisure Centre Rubric**

Category	Level 1	Level 2	Level 3	Level 4
<b>Knowledge/ Understanding</b>	<ul style="list-style-type: none"> <li>demonstrates limited knowledge of the basic properties of quadratic relations e.g., forms <math>y = a(x - r)(x - s)</math> and <math>y = a(x - h)^2 + k</math></li> </ul>	<ul style="list-style-type: none"> <li>demonstrates some knowledge of the basic properties of quadratic relations e.g., forms <math>y = a(x - r)(x - s)</math> and <math>y = a(x - h)^2 + k</math></li> </ul>	<ul style="list-style-type: none"> <li>demonstrates considerable knowledge of the basic properties of quadratic relations e.g., forms <math>y = a(x - r)(x - s)</math> and <math>y = a(x - h)^2 + k</math> (e.g., manipulates the relations with considerable accuracy to find the vertex and interpret the result)</li> </ul>	<ul style="list-style-type: none"> <li>demonstrates thorough knowledge of the basic properties of quadratic relations e.g., forms <math>y = a(x - r)(x - s)</math> and <math>y = a(x - h)^2 + k</math> (e.g., manipulates the relations with a high degree of accuracy to find the vertex and interpret the result)</li> </ul>
<b>Thinking</b>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes with limited effectiveness (e.g., little evidence of problem solving and reasoning skills in analysing and solving the problem)</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes with some effectiveness (e.g., some evidence of problem solving and reasoning skills in analysing and solving the problem)</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes with considerable effectiveness (e.g., considerable evidence of problem solving and reasoning skills in analysing and solving the problem)</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes very effectively (e.g., detailed evidence of problem solving and reasoning skills in analysing and solving the problem)</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with limited effectiveness</li> <li>uses mathematical vocabulary and notation with limited effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with some effectiveness</li> <li>uses mathematical vocabulary and notation with some effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with considerable effectiveness</li> <li>uses mathematical vocabulary and notation with considerable effectiveness (e.g., uses good form for presenting a solution and/or graphs)</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with a high degree of effectiveness</li> <li>uses mathematical vocabulary and notation with a high degree of effectiveness (e.g., uses very good form for presenting a solution and/or graphs)</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>applies knowledge to this context with limited effectiveness (e.g., applies steps to set up the revenue formula in the form <math>y = a(x - r)(x - s)</math> and transforms it to the form <math>y = a(x - h)^2 + k</math> with limited success)</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge to this context with some effectiveness (e.g., applies steps to set up the revenue formula in the form <math>y = a(x - r)(x - s)</math> and transforms it to the form <math>y = a(x - h)^2 + k</math> with some success)</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge to this context with considerable effectiveness (e.g., applies steps to set up the revenue formula in the form <math>y = a(x - r)(x - s)</math> and transforms it to the form <math>y = a(x - h)^2 + k</math> with considerable success; e.g., by using tools to find the relation and/or generalizing to an algebraic technique)</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge to this context with a high degree of effectiveness (e.g., applies steps to set up the revenue formula in the form <math>y = a(x - r)(x - s)</math> and transforms it to the form <math>y = a(x - h)^2 + k</math> with a high degree of success; e.g., by using tools to find the relation and/or generalizing to an algebraic technique)</li> </ul>