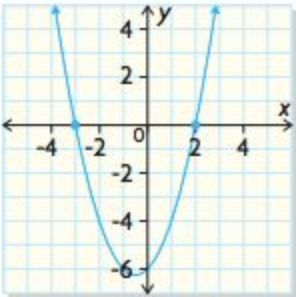
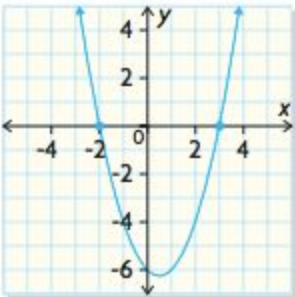
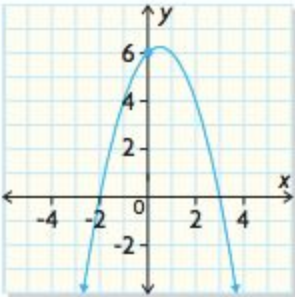




<p><b>52.5</b></p>	<p>For each graph, state the <math>x</math>-intercept and then use the <math>x</math>-intercepts to determine the equation of the parabola in the form of <math>y = a(x + R)(x - S)</math></p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>ii)</p>  </div> <div style="text-align: center;"> <p>iv)</p>  </div> <div style="text-align: center;"> <p>vi)</p>  </div> </div>
<p><b>52.6</b></p>	<p>A company models the profit of its latest video game using the relation <math>P(x) = -4x^2 + 20x - 9</math>, where <math>x</math> is the number of games produced (in hundreds of thousands) and <math>P</math> is the profit in millions of dollars.</p> <ol style="list-style-type: none"> <li>Explain what the point <math>(5, -9)</math> means in the context of this problem.</li> <li>Suggest a reasonable domain for this relation, given the context of the problem.</li> <li>What are the break even points for the company?</li> <li>What is the maximum profit that the company can earn?</li> <li>How many games must be produced to earn this maximum profit?</li> <li>Rewrite the equation in vertex form.</li> </ol>
<p><b>52.7</b></p>	<p>Given the function <math>y = \frac{1}{2}(x - 3)^2 - 2</math>, use your calculator to help answer the following questions about this quadratic relation</p> <ol style="list-style-type: none"> <li>Create a table of values, using the <math>x</math> values of <math>\{0, 1, 2, 3, 4, 5, 6\}</math>.</li> <li>Determine the equation of the axis of symmetry.</li> <li>Find the coordinates of the vertex.</li> <li>Find the coordinates of the zeros.</li> <li>Find the <math>y</math>-intercepts.</li> <li>Determine the maximum OR minimum value.</li> </ol>
<p><b>52.8</b></p>	<p>Fun times today and thanks for your participation and efforts in this situation. As requested, I am putting the video of the recorded lesson into our shared google folder ==&gt; (address link below)</p> <p><a href="https://drive.google.com/drive/folders/12SwzmIuNrofSFnJxpHtQ67tCcCTp7LSN">https://drive.google.com/drive/folders/12SwzmIuNrofSFnJxpHtQ67tCcCTp7LSN</a></p>