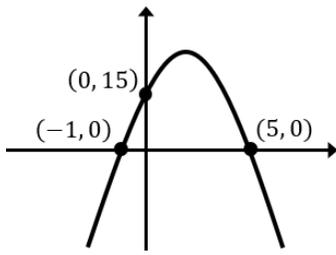
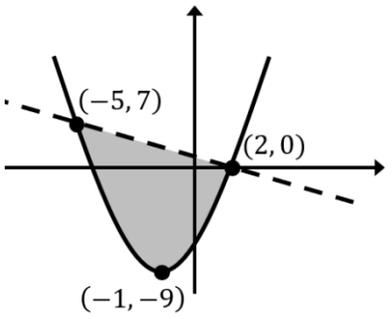


Quadratics Revision

| | | |
|---|---|---|
| (a) | (b) | (c) |
| <p>Find the coordinates of the turning point of the curve with equation</p> $y = 2x^2 + 7x - 3$ | <p>Solve</p> $5y = 4 - \sqrt{y}$ | <p>Find the equation of the quadratic curve.</p>  |
| (d) | (e) | (f) |
| <p>Given that the line $y = 2x - 5$ intersects the curve $y = 3x^2 + ax - 1$ at two points, find the possible range of values for a.</p> | <p>Find the set of values for which $5 - 2x \geq 3x + 1$ and $8x^2 < 3 + 10x$. Give your answer in set notation.</p> | <p>Solve the simultaneous equations</p> $x - y = 8$ $2x - y^2 - 1 = 0$ |
| (g) | | (h) |
| <p>A quadratic curve and a line form a region shaded on the graph shown. Find the single inequality which describes the region.</p>  | | <p>The path of a tennis ball through the air can be modelled as a curve with equation $h = 0.608 + 0.72x - 0.05x^2$ where h is the height of the ball and x is the horizontal distance from the tennis player.</p> <p>(a) Find the height of the ball when it has travelled 2 m horizontally. (b) Find the horizontal distance of the ball from the tennis player when it hits the ground. (c) Find the maximum height of the tennis ball.</p> |