

**Curve Dissection**

Use the first and second derivative to make a perfect graph. Include any asymptotes and the y intercept. Put the graph in the box.

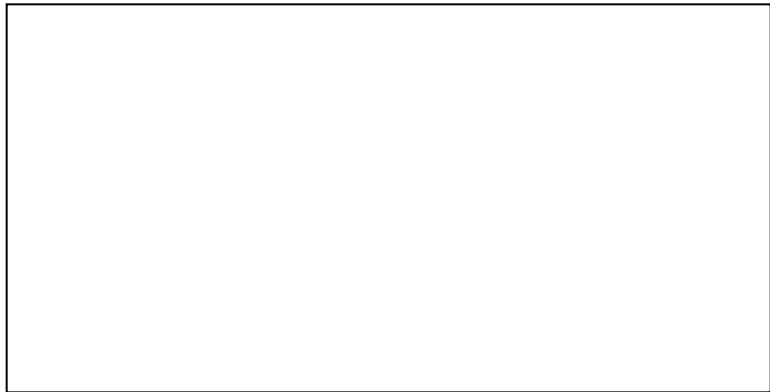
**Equation 1 :**  $f(x) = x^3 - 3x^2 + 3$



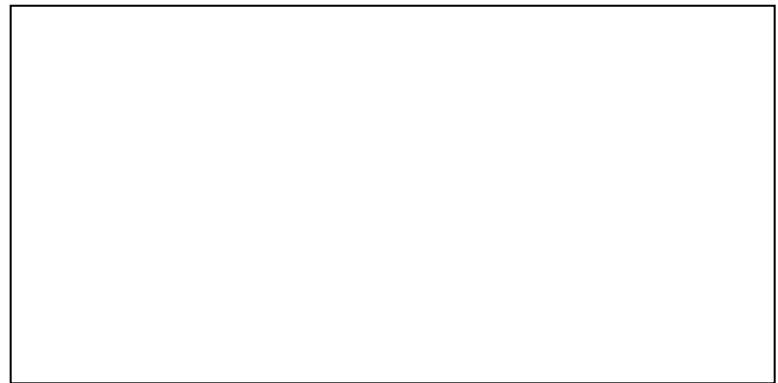
**Equation 2:**  $y = 3x^{\frac{2}{3}} - 2x$



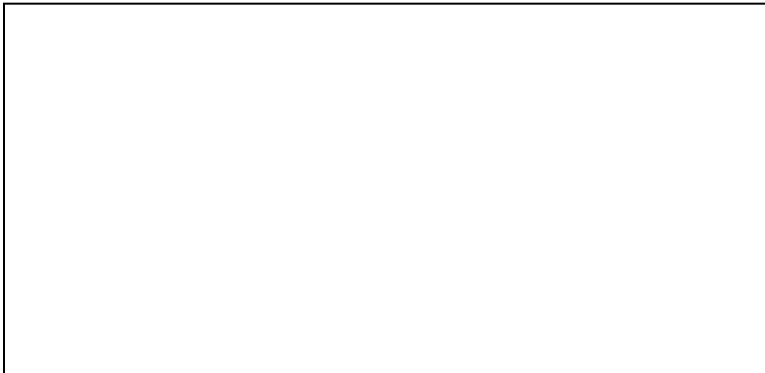
**Equation 3:**  $y = x - 3x^{\frac{1}{3}}$



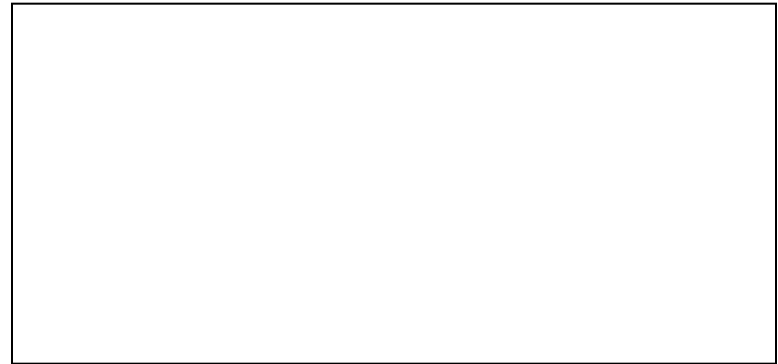
**Equation 4:**  $f(x) = \frac{x}{x-1}$



**Equation 5:**  $f(x) = x^4 - 4x^3$



**Equation 6:**  $f(x) = x^5 - 5x$



Equation 7:  $f(x) = 3x^5 - 5x^3 + 3$



Equation 8:  $f(x) = \frac{3x}{x-3}$



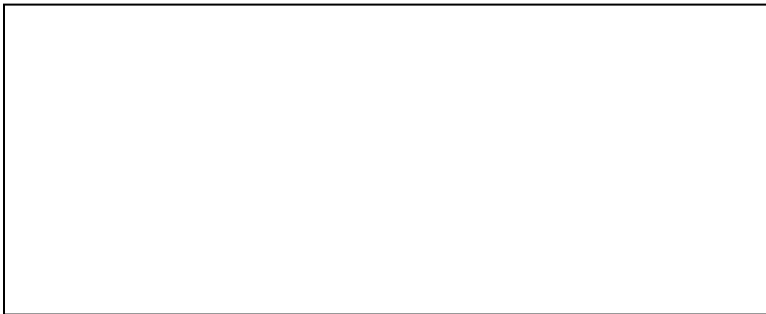
Equation 9:  $g(x) = \frac{x+2}{x}$



Equation 10:  $g(x) = \frac{x}{x^2+1}$



**Equation 11:**  $g(x) = 3x^4 + 4x^3$



**Equation 12:**  $f(x) = x(x-4)^3$

