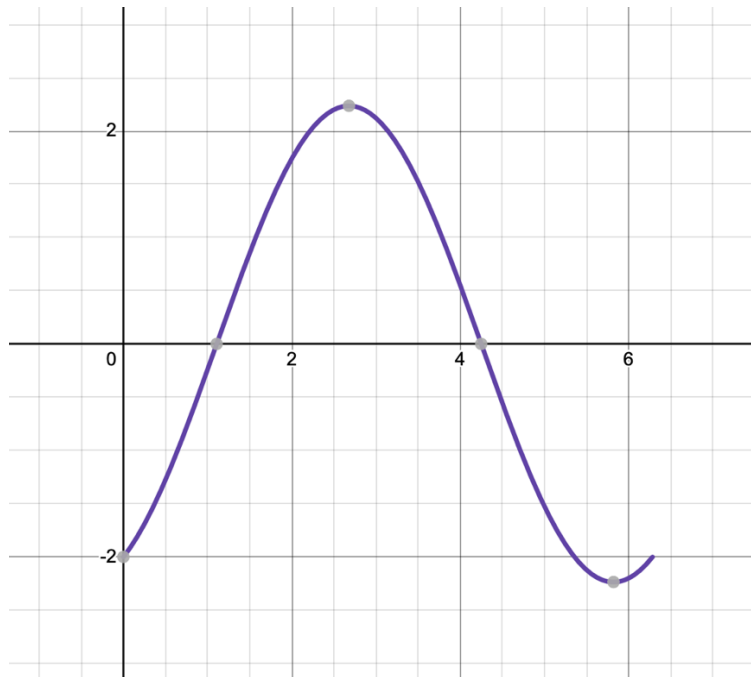


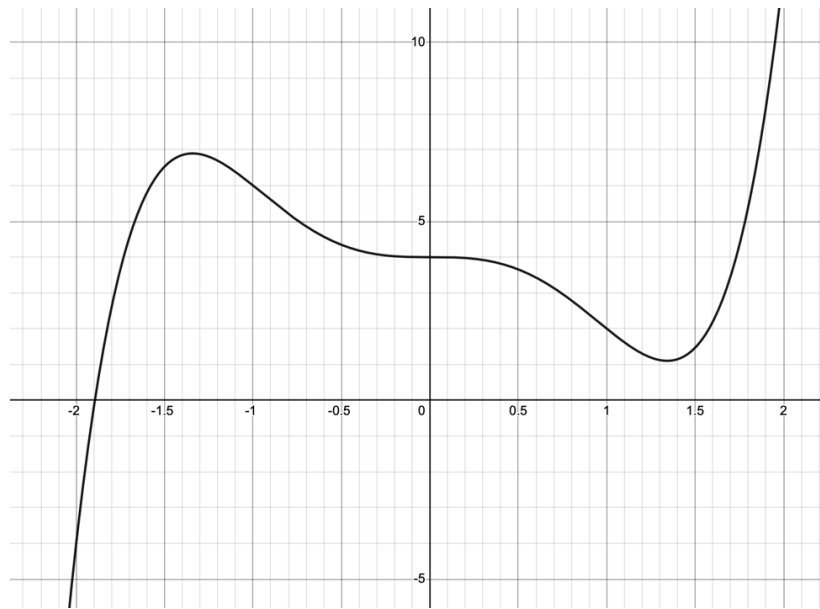
## Intervals of Concavity Inflection Points

Determine the intervals of concavity and possible inflection points for the following curves.

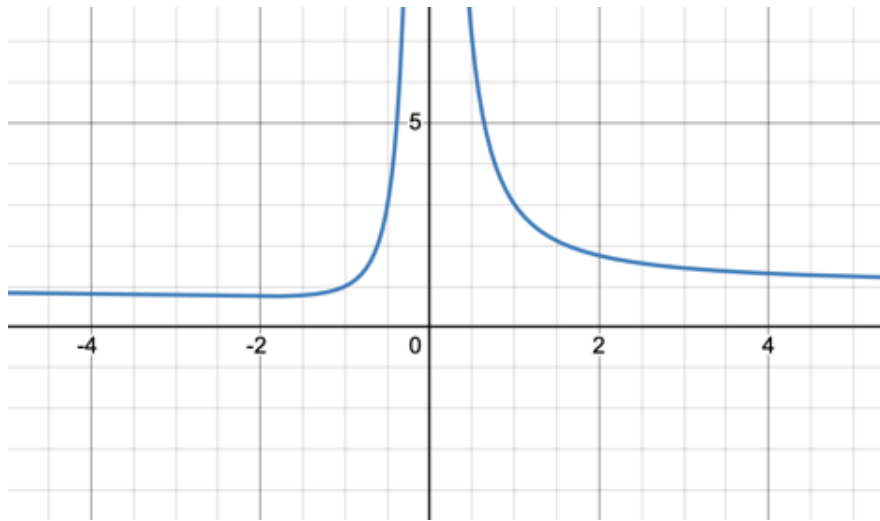
1.  $y = \sin(x) - 2\cos(x)$  for  $0 \leq x \leq 2\pi$



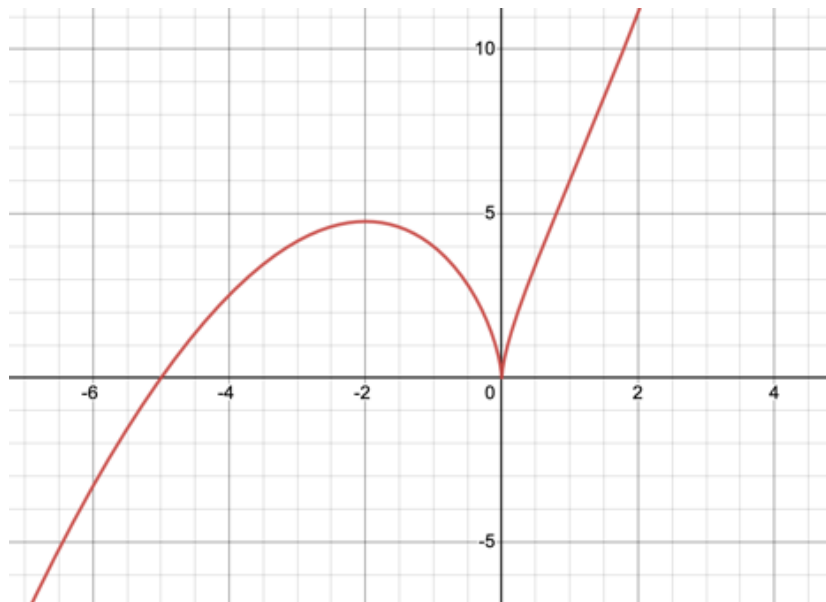
2.  $y = x^5 - 3x^3 + 4$



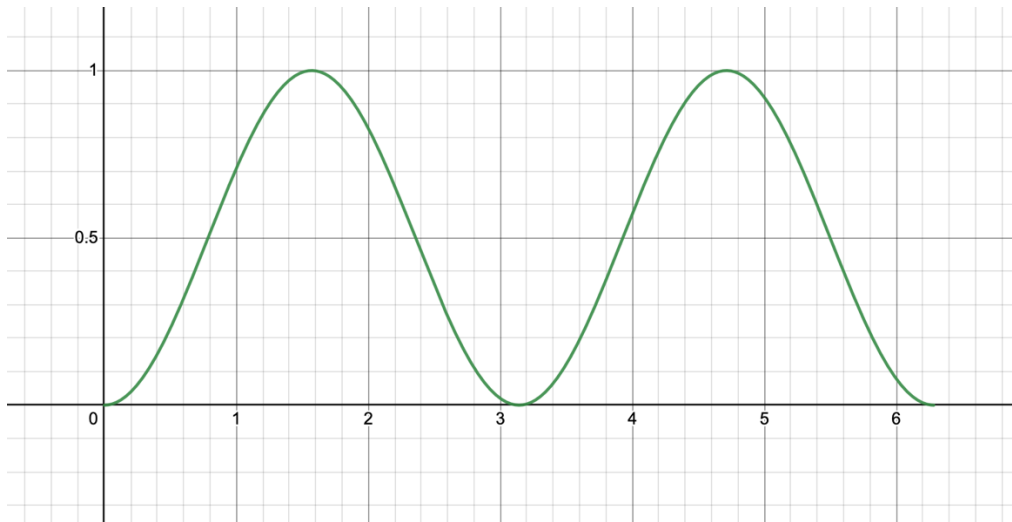
3.  $y = 1 + \frac{1}{x} + \frac{1}{x^2}$



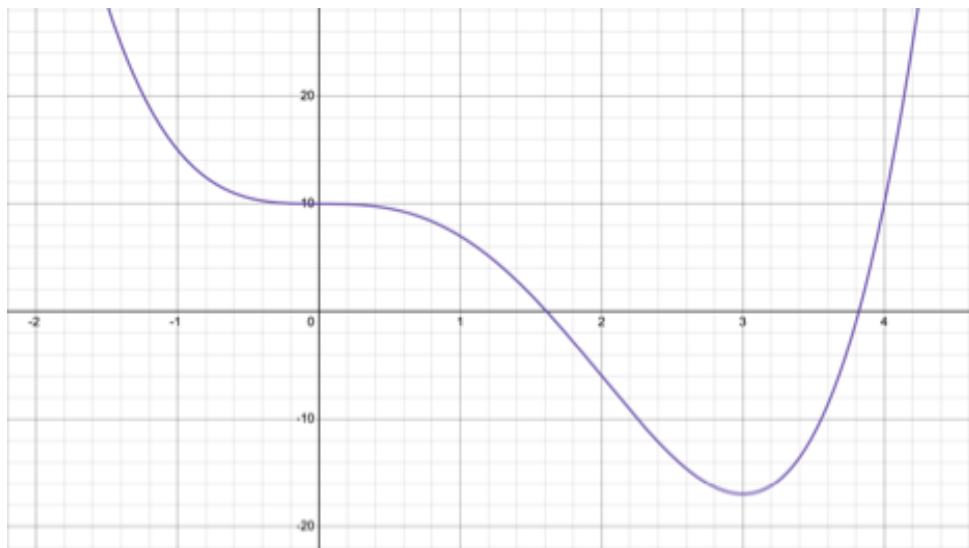
4.  $y = x^{5/3} + 5x^{2/3}$



5.  $y = \sin^2(x)$  for  $0 \leq x \leq 2\pi$



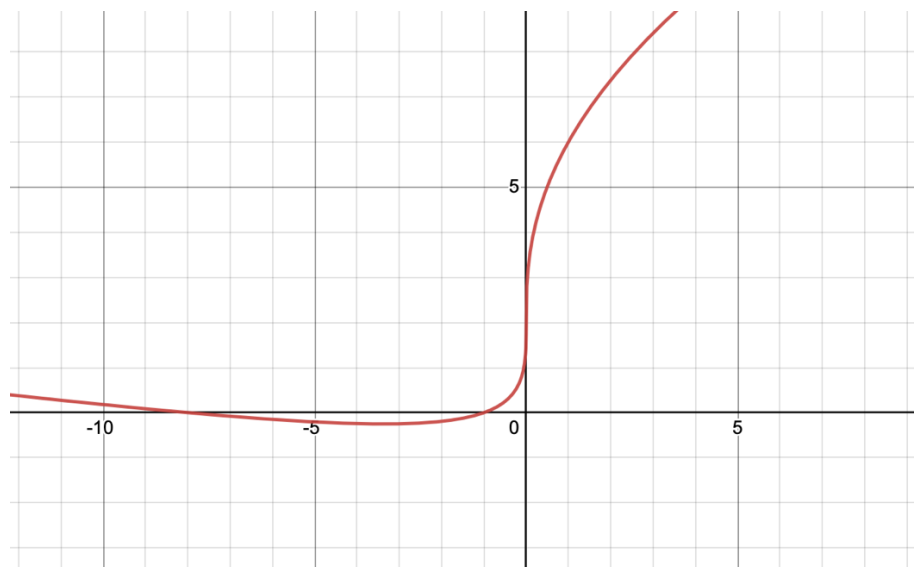
6.  $y = x^4 - 4x^3 + 10$



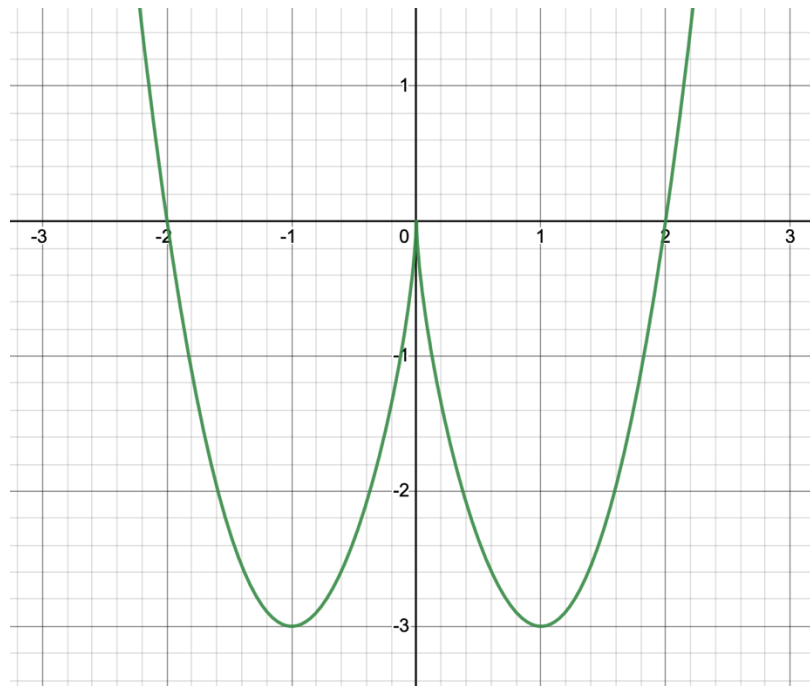
7.  $y = \frac{\sqrt{x}}{x+1}$



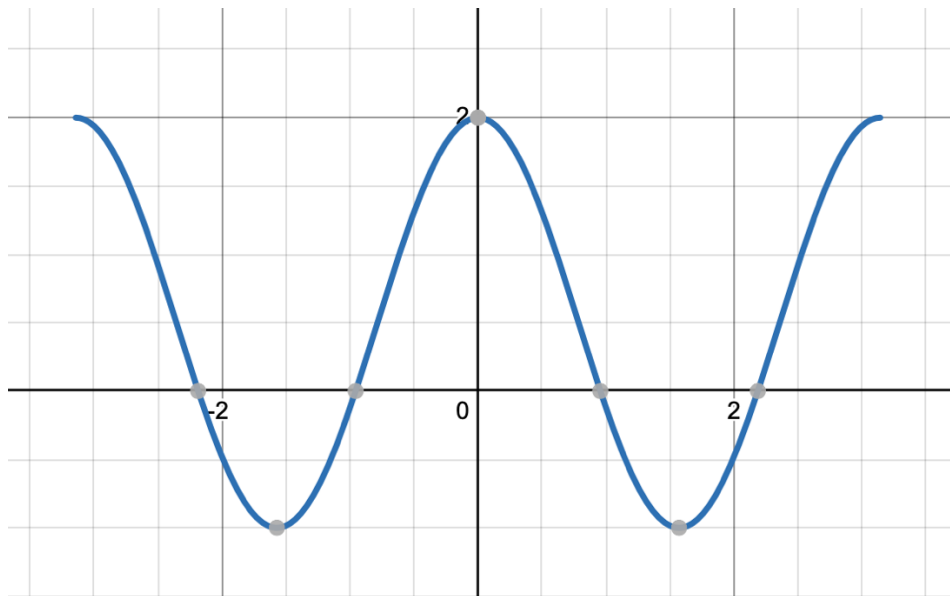
8.  $y = x^{2/3} + 3x^{1/3} + 2$



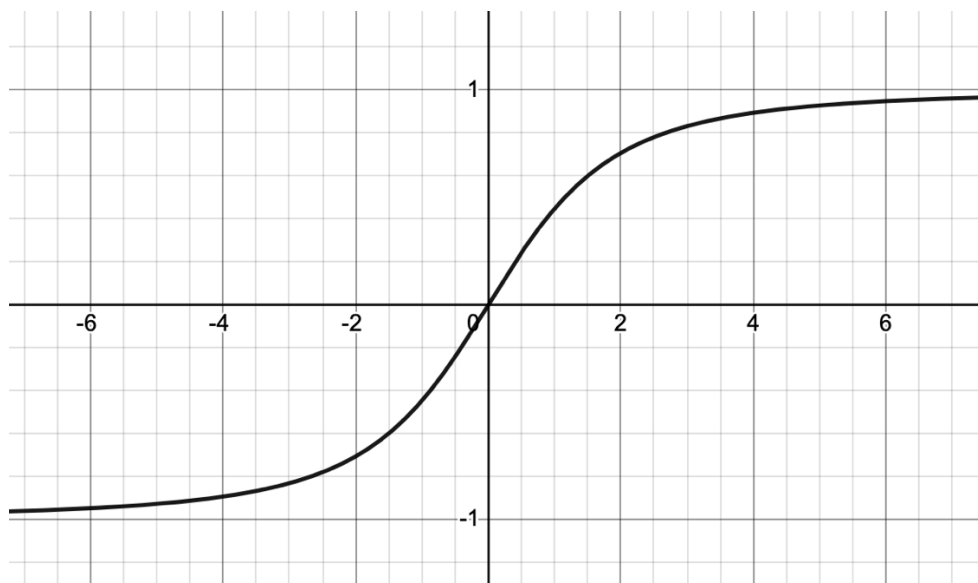
9.  $y = x^{2/3}(x^2 - 4)$



10.  $y = 2\cos^2(x) - \sin^2(x)$  for  $-\pi \leq x \leq \pi$



11.  $y = \frac{x}{\sqrt{x^2+4}}$



12.  $y = \tan^2(x)$  for  $-\pi \leq x \leq \pi$

