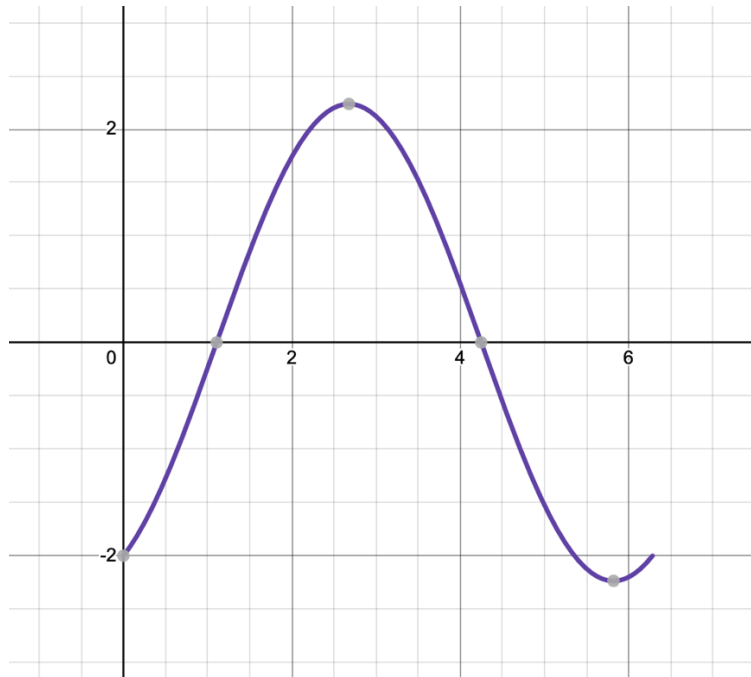


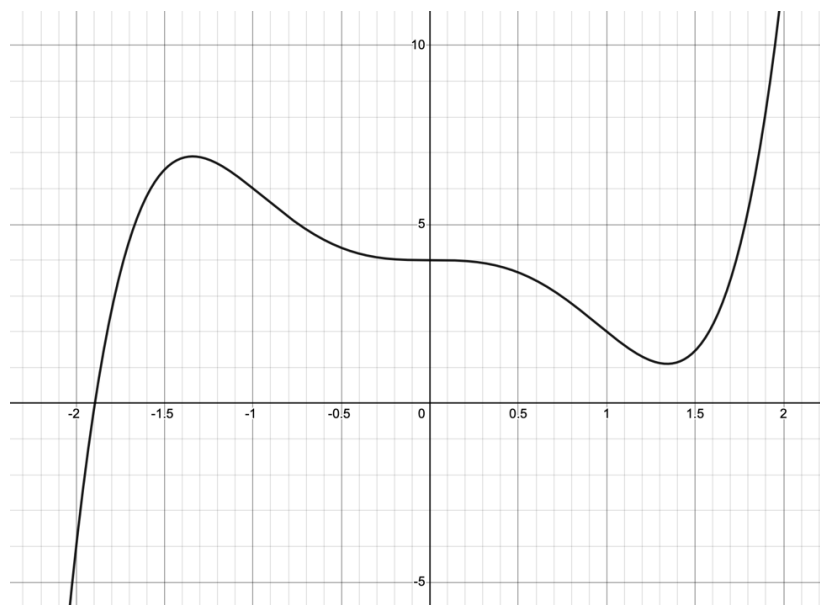
Continuity

Use the graph for the functions and determine the value of x for which the function is continuous. If the function is discontinuous, please state why (see below) and the value of x for which you have a discontinuity. **Answers are continuous everywhere, continuous over the restricted domain, discontinuous at the vertical asymptote(s), discontinuous at a jump discontinuity.**

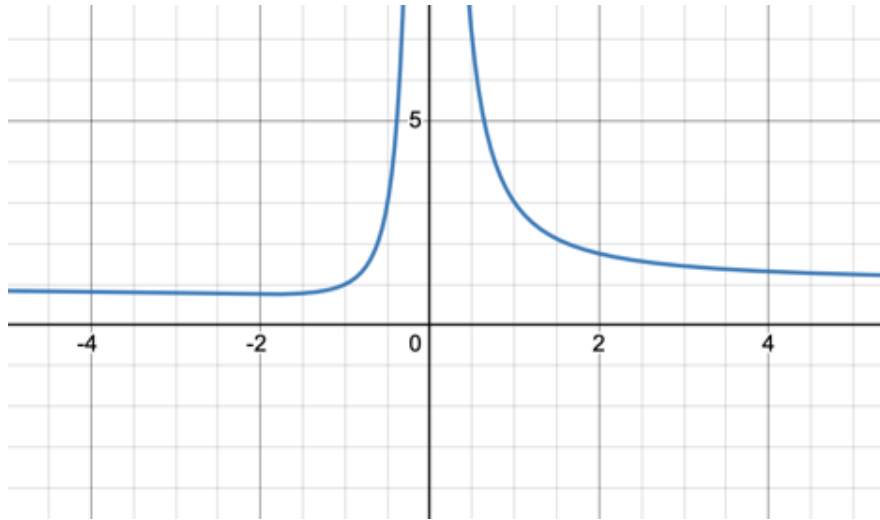
1. $y = \sin(x) - 2\cos(x)$ for $0 \leq x \leq 2\pi$



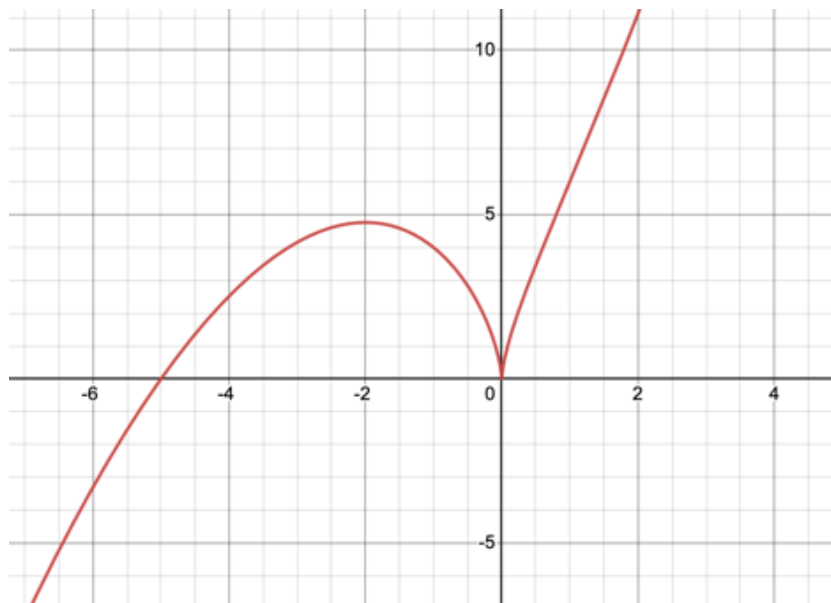
2. $y = x^5 - 3x^3 + 4$



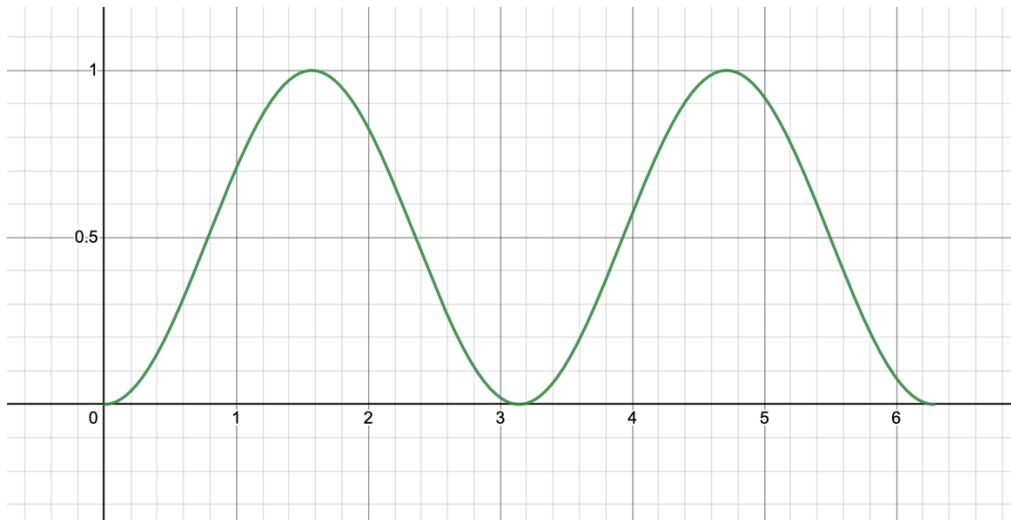
3. $y = 1 + \frac{1}{x} + \frac{1}{x^2}$



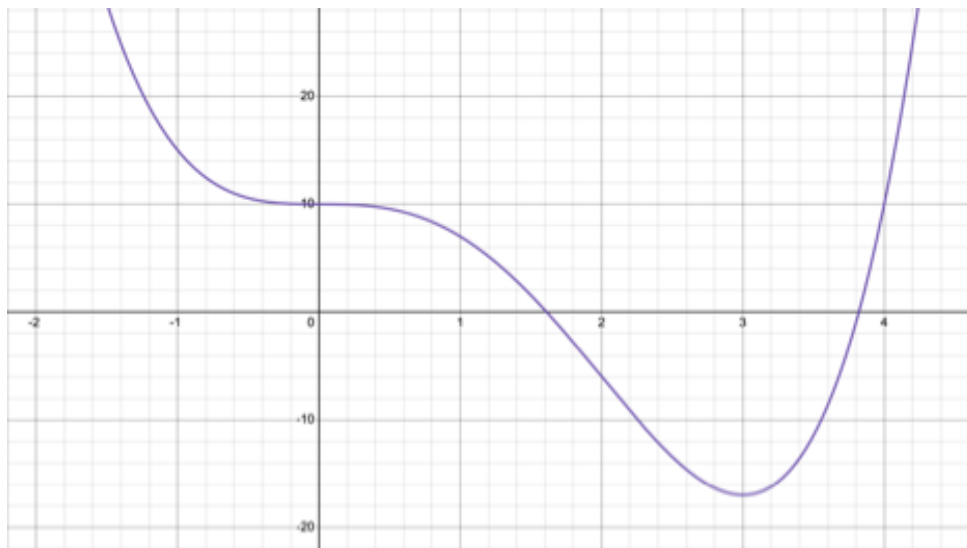
4. $y = x^{5/3} + 5x^{2/3}$



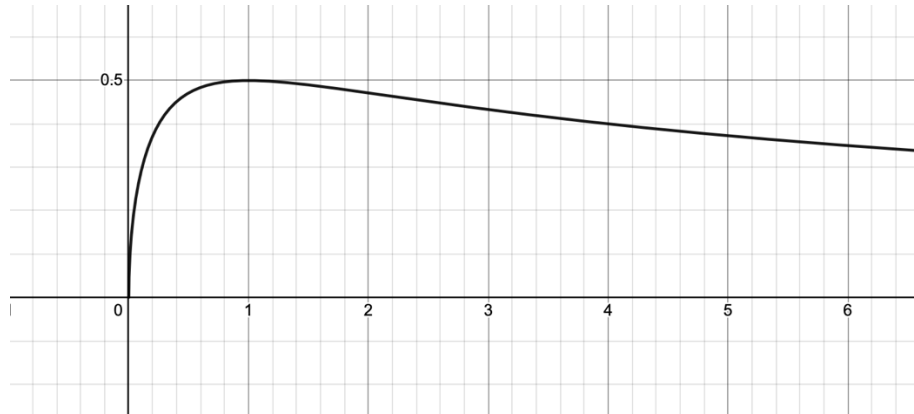
5. $y = \sin^2(x)$ for $0 \leq x \leq 2\pi$



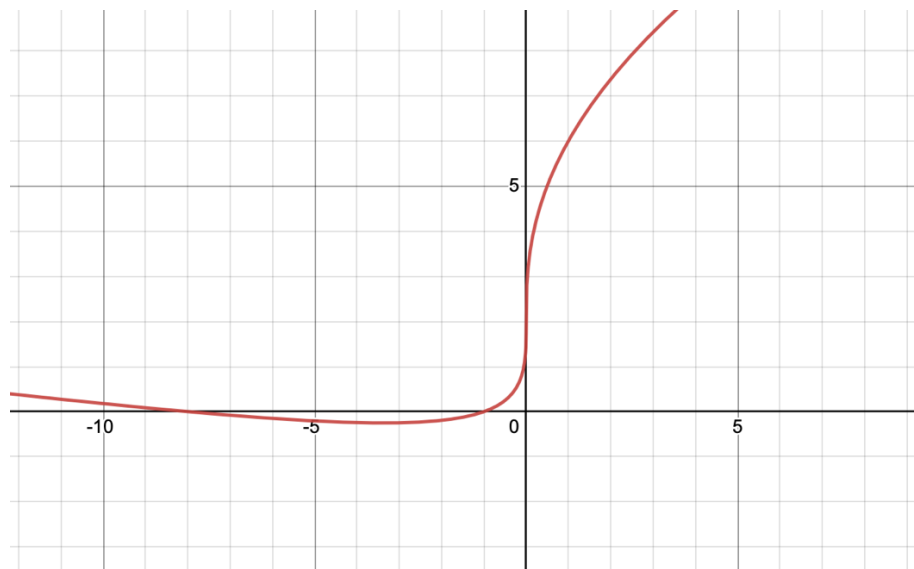
6. $y = x^4 - 4x^3 + 10$



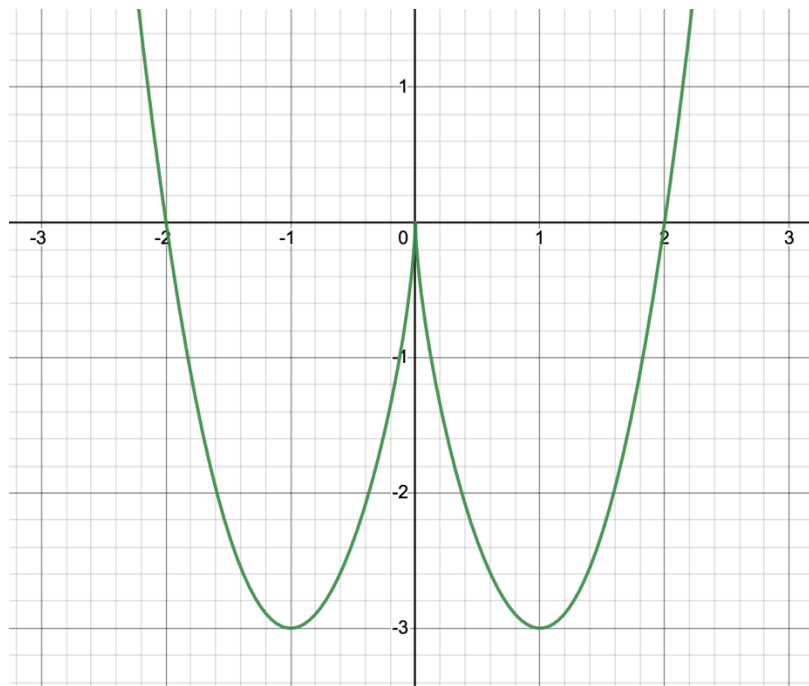
7. $y = \frac{\sqrt{x}}{x+1}$



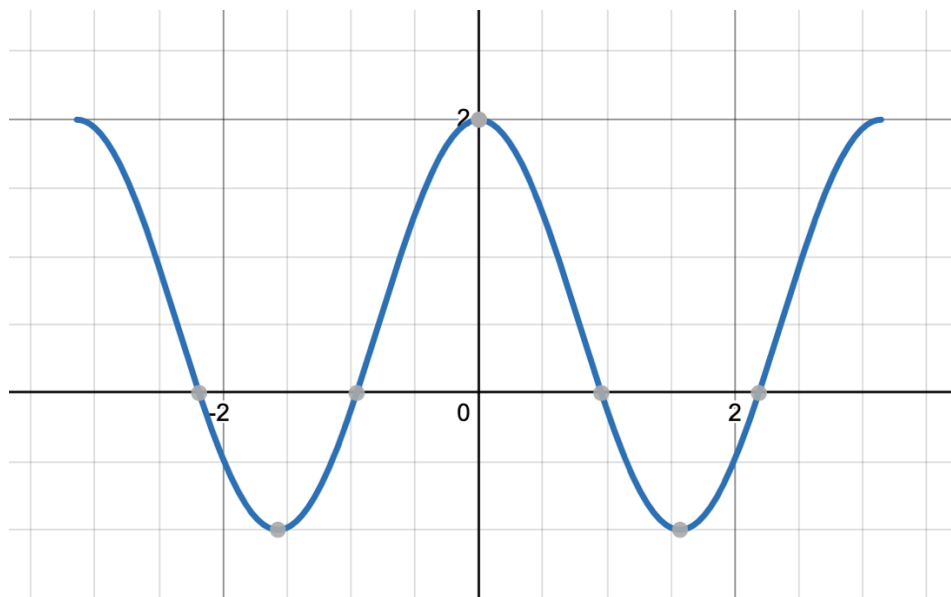
8. $y = x^{2/3} + 3x^{1/3} + 2$



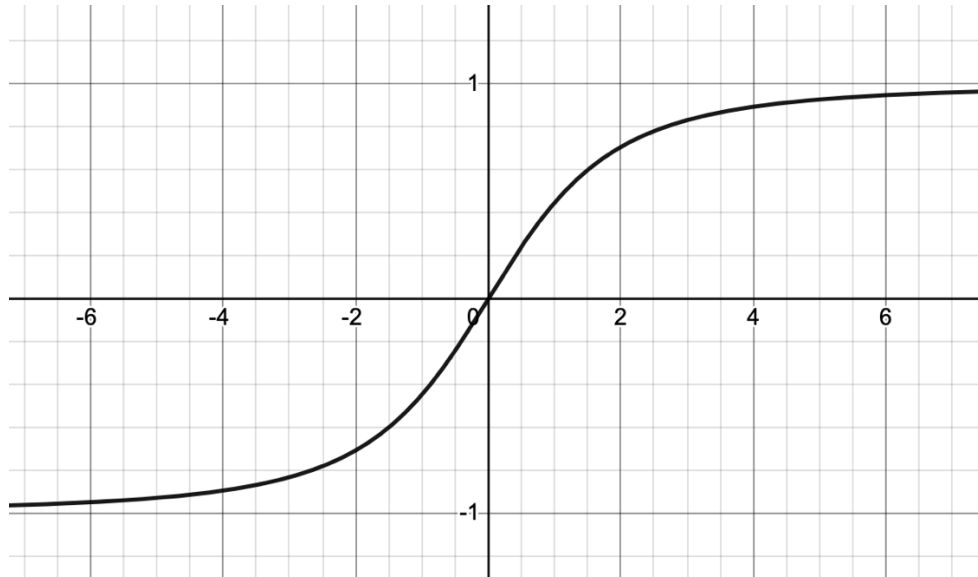
9. $y = x^{2/3}(x^2 - 4)$



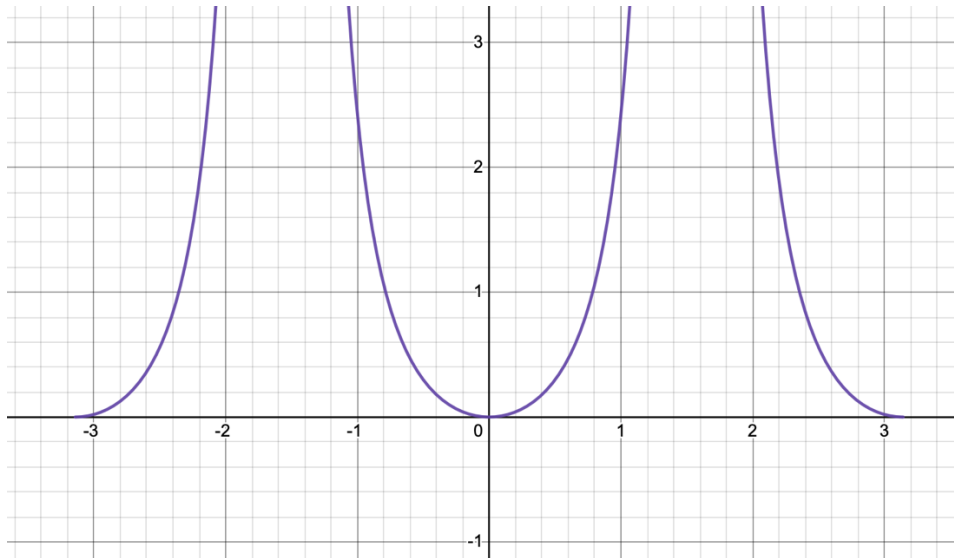
10. $y = 2\cos^2(x) - \sin^2(x)$ for $-\pi \leq x \leq \pi$



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



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



13. Piecewise Function f

