# Intervals of Concavity and Inflection Points

1. $f(x) = 5 - 3x^2 + x^3$

2. $f(x) = \dfrac{x^2}{x^2+3}$

3. $f(x) = \cos^2(x) - 2\sin(x)$ over $0 \le x \le 2\pi$

4. $f(x) = 200 + 8x^3 + x^4$

5. $f(x) = (x^2 - 1)^3$

6. $f(x) = x - 4\sqrt{x}$

7. $f(x) = 3x^{2/3} - x$

8. $f(x) = x + \cos(x)$ over $0 \le x \le 2\pi$