

1. For each function, find a formula for its derivative.

You can verify your answer by graphing f and f' on the same set of axes.

(a) $f(x) = x^2 - 2x + 3$

(b) $f(x) = x^3 - \frac{5}{x^2} + 2$

(c) $f(x) = 2x^\pi + x^{-42} - 17x$

2. For each function in #1, find a function $F(x)$ whose derivative is equal to $f(x)$.