No notes, books, cellular devices or graphing calculators are to be used.

1. (2.2 #11) Sketch the graph of a function that has the properties:

   (0,6), (2,3) and (4,0) are on the graph; 
   f'(0) = 0 and f'(4) = 0; 
   f''(x) < 0 for x < 2, f''(2) = 0, 
   f(x) > 0 for x > 2

2. (2.3 #1) The function f(x) = x^3 - 27 have one relative maximum and one relative minimum point. Find these points using the first derivative test.
3. (2.3 #27) Sketch the curve \( y = 1 + 3x^2 - x^3 \) indicating all relative extreme points and inflection points.