MA 180 **Solving Equations Graphically**
Section 1.4

A. The x-intercept method (finding the zeros or roots)

(1) Set the equation to zero
(2) Enter the non-zero side of the equation into Y1
(3) Choose an appropriate window to graph
(4) 2^{nd} TRACE [CALC]
(5) Select 2: zero (root on the TI-82)
(6) Arrow left/right and press ENTER when you are to the left of the zero
(7) Arrow left/right and press ENTER when you are to the right of the zero
(8) Arrow "close" to the zero and press ENTER to select your GUESS

1. Use this method to solve the equation $-2x^4 + 4 = x^3 + 2$

B. The intersection of graphs method

(1) Enter the left-hand side of the equation (LHS) into Y1
(2) Enter the right-hand side of the equation (RHS) into Y2
(3) Choose an appropriate window to graph
(4) 2^{nd} TRACE [CALC]
(5) Select 5:intersect
(6) Press ENTER on the FIRST CURVE
(7) Press ENTER on the SECOND CURVE
(8) Press ENTER with your GUESS
(9) The x-coordinate of the point of intersection is the solution to the equation

2. Use this method to solve the equation $\frac{1}{4}x^3 - 5x = \frac{1}{5}x^2 - 2$