Solve the following inequality. Express the solution set using interval notation.

$$\left|\frac{2}{3}x - 2\right| + 6 \le 8$$

Graph using transformations:

$y = -x^3$

$f(x) = -x^3 + 1$

For the function $y = 1 - x^2$

      a. Show that it is even.

      b. Write a new function whose graph would be shifted down 1 unit.

      c. Write a new function whose graph would be shifted to the right by 2 units.

      d. Write a new function that would be reflected over the *x*-axis.

      e. State the Domain and Range of the original function.

Change $f(x) = x^2 - 2x + 1$ into "Parabola Form" and graph.

Change $f(x) = -3x^2 - 6x + 1$ into "Parabola Form" and graph.

The center of the Golden Gate Bridge in San Francisco is in the shape of a parabola, as are all suspension bridges. If the distance between the towers in the picture below is 1280 m in width and the height of the cable 320m from the vertex is 40m, how high above the vertex are the towers?