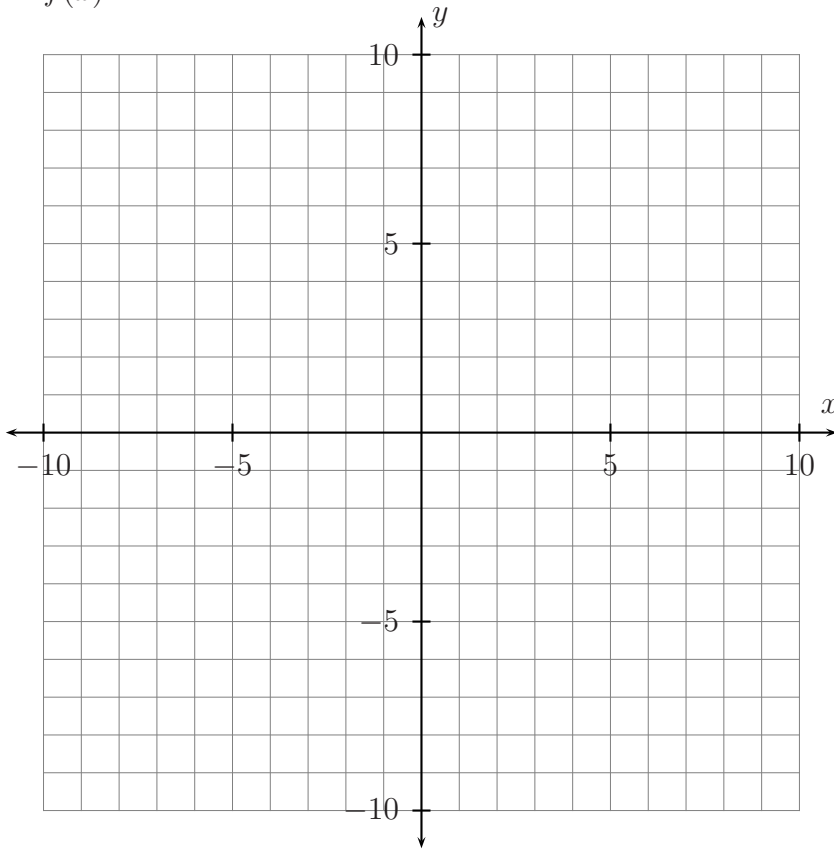1. Sketch a graph of the function f, it's inverse f^{-1}, and $y = x$ on the same axes below. Label each graph with f, f^{-1}, or $y = x$.

$f(x) = 2^x$

2. Find the formula for the inverse of $f(x) = -\frac{2}{5}x - 8$

3. The number of cremations in the United States has steadily increased over the past two decades (see the table).

Year	Percent
1980	9.7
1985	14.0
1990	17.6
1995	21.4
2000	25.5

Let p represent the percentage of bodies that are cremated at t years since 1900.

(a) Use your graphing calculator to draw a scattergram. Is it better to use a linear or exponential function to model the situation?

(b) Find an equation for f.

(c) Find an equation for f^{-1}.

(d) Use f to predict when half of people who die will be cremated.

(e) Use f^{-1} to predict when half of people who die will be cremated.

(f) Compare your results in parts d and e.

4. Use the following graph of $y = f(x)$ to answer the following.
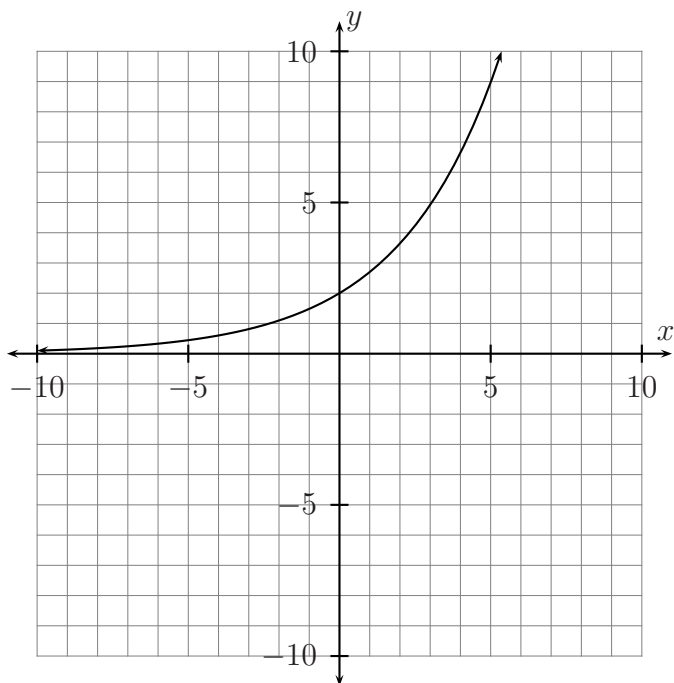
(a) Estimate $f(0)$

(b) Estimate $f(2)$

(c) Estimate $f^{-1}(9)$

(d) Estimate $f^{-1}(.5)$

(e) Estimate $f^{-1}(4)$