1. Without doing a bunch of algebra, find $f^{-1}(x)$ for each function below:

(a)
$$f(x) = 2x$$

(b)
$$f(x) = x^3$$

2. Without explicitly finding a formula for $f^{-1}(x)$, find $f^{-1}(1)$ for each function below:

(a)
$$f(x) = x - 20$$

3. Evaluate $\sin^{-1}(1)$.

4. Find the exact value of each expression.

(b)
$$e^{\ln 5}$$

5. Solve each equation below for x.

(a)
$$10 = 2e^{x+1}$$

(b)
$$ln(x^2 - 1) = 1$$

6. Sketch each function. Include domain, range, intercepts and asymptotes.

(a)
$$f(x) = \ln(x+1)$$



