

Practice Problems for Midterm I

- Let $f(x) = 2x^3$.
 - Find $f^{-1}(16)$.
 - Find $f^{-1}(x)$.
- Graph the curve $y = x^2 - 1$
- Find the distance between the points $(-3, 2)$ and $(1, 5)$.
- Car A leaves San Francisco at noon and travels along a straight route to Los Angeles at 55mph. Car B leaves San Francisco at 1:30pm and travels along the same route at 70mph. How far from San Francisco are the cars when Car B passes Car A?
- A box (with four sides, a top, and a base) has a base that is twice as long as it is wide, and the height of the box is three times the width of its base. If the surface area of this box is 88 m^2 , what is the volume of the box?