CALCULUS I – Worksheet #3

1. Given the point C(-4,6) and D(2, -3)
(a) Find the slope of CD. (b) Find the slope of the line perpendicular to line CD.

2. Find the equation of the line through (1, -3) and
(a) parallel to the line $2y - 3x = 4$ (b) perpendicular to the line $2y - 3x = 4$

3. Solve for **x** and give your solution without using absolute value symbols: $|x - 2| \leq 5$.

4. If $f(x) = \sqrt{(x+2)}$ and $g(x) = 2x$, then find (a) f[g(x)], (b)g[f(x)], (c)f[f(x)], d)g[g(x)].

5. For the line $4x + 3y = -1$ (a) find the y-intercept (b) find the x-intercept

6. Find the domain of : (a) $y = \frac{2}{x-2}$ (b) $y = 2x - 4$

7. If points A and B are symmetric about the origin and point A has coordinate (3,8), then find the coordinates of point B.

8. Is $f(x) = 4x$ odd, even, or neither? Show why.