

Problem Set 4A: Assignment 4

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MAT 123 - Precalculus
Summer Session II 2018

DUE DATE: Wednesday, August 8th, 2018.

Exercise 0. Review sections 3.5 & 4.1 – 4.4. Re-read everything thoroughly. Done? Good! You may now move to **Exercise 1**.

Exercise 1. About how many years will it take for a sample of cesium-137, which has a half-life of 30 years, to have only 3% as much cesium-137 as the original sample?

Exercise 2. Find the coordinates of two points, one on the horizontal axis and one on the vertical axis, such that the distance between these two points equals 15.

Exercise 3. Sketch the trapezoid whose vertices are (2,1), (6,1), (8,4) and (1,4). Also, find its area.

Exercise 4. Let $f(x) = 4 + \ln(x - 2)$. Find the domain of f and find a formula for $f^{-1}(x)$.

Exercise 5. Find the number c such that the area of $1/x$ on the interval from 5 to c is 4.