MEMORIAL UNIVERSITY OF NEWFOUNDLAND
DEPARTMENT OF MATHEMATICS AND STATISTICS

SECTION 4.6 **Math 1001 Worksheet** WINTER 2024

For practice only. Not to be submitted.

1. Use the disc-washer method to find the volume of the solid generated by rotating the indicated region about the x-axis.

   (a) $y = \sqrt{x-2}$, $y = 0$, $x = 6$

   (b) $y = x^2$, $y = 2x$

   (c) $y = \frac{12}{x}$, $y = 3x$, $y = 2$

2. Use the disc-washer method to derive the formula for the volume of a cone of radius a and height b.