Area with respect to *y*

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1. If f and g are continuous on [a,b] and $f(y) \le g(y)$ bounded by horizontal lines $y = c$ and $y = d$, then the area is found by

$$A = \int_c^d (g(y) - f(y))\, dy$$

2. If the area is Right - Left, then integrate w/respect to *y*.

**1. Consider the curve $y^2 = 4 + x$ and chord AB joining points A(-4, 0) and B(0, 2) on the curve. Find the area of the region R enclosed by the curve and chord AB.

Notes on Area With Respect To y

1. For $y = x - 1$ and $y^2 = 2x + 6$, find the area between the curves
   a) without a calculator and

   b) with a calculator.

2. Use the calculator to set up how to find the area for the region enclosed by $x = y^2 - 2$ and $y = x^3$.