

Math 101 – WORKSHEET 7
AREA BETWEEN CURVES

- (1) Find the total area of the following planar regions. It will be useful to sketch the region first.
- (a) (Final, 2011) The finite region lying between the curves $y = x$ and $y = x^3$.

- (b) (Final, 2014) The finite region bounded by the two curves $y = \sqrt{2} \cos(x\pi/4)$ and $y = |x|$.

- (2) Find the total area of the following planar regions. It will be useful to sketch the region first.
- (a) The finite region bounded by the y -axis, the graph of $y = \arcsin(x)$ and the line $y = \frac{\pi}{2}$.

- (b) (Quiz, 2015) The finite region to the left of the y -axis and to the right of the curve $x = y^2 + y$.