- **1.1** In a pure exchange economy, Ollie's utility function is U(x, y) = 3x + y and Fawn's utility function is U(x, y) = xy. Ollie's initial allocation is 1x and no y's. Fawn's initial allocation is no x's and 2y's. Draw an Edgeworth box for Fawn and Ollie. Put x on the horizontal axis and y on the vertical axis. Measure goods for Ollie from the lower left and goods for Fawn from the upper right.
 - a) Mark the initial allocation with the letter W.
 - **b)** Draw the indifference curves that go through the initial endowments.
 - c) Find the contract curve.
- **1.2** Consider two subjects with utility functions: $u_a = 4x^{1/2}y^{1/2}$ and $u_b = x^{1/3}y^{2/3}$. Endowments are: $w_1 = w_2 = (1,1)$.
 - a) State the budget constraint and solve the problem for each agent.
 - b) Find the competitive equilibrium and draw the edgeworth box.