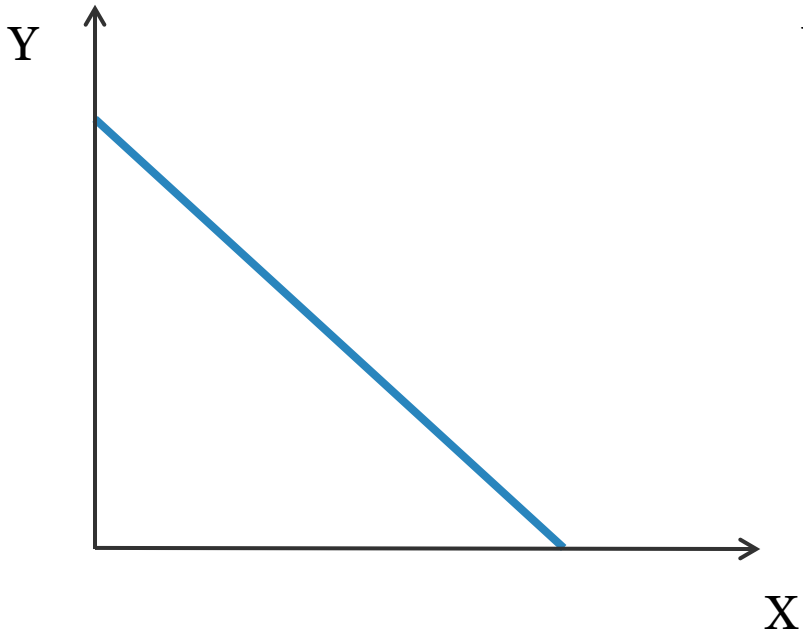
Consumer Behavior:
Budget Constraint

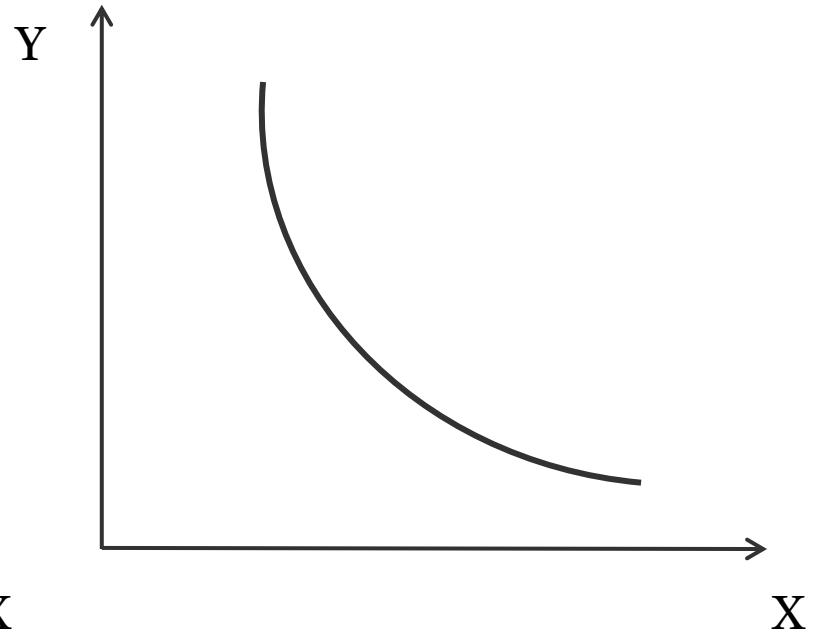
EconTutors

Specialists in Economics

Utility Maximization

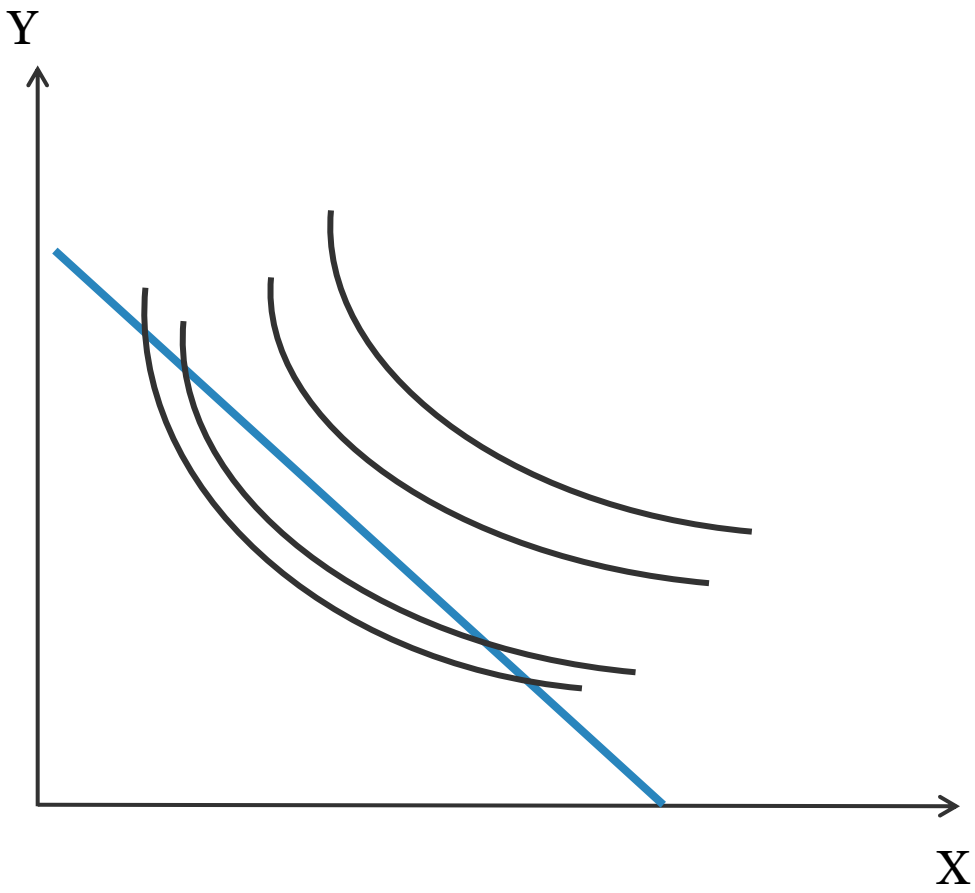
- Budget constraint refers to our affordability.
- $I = P_x \times x + P_y \times y$





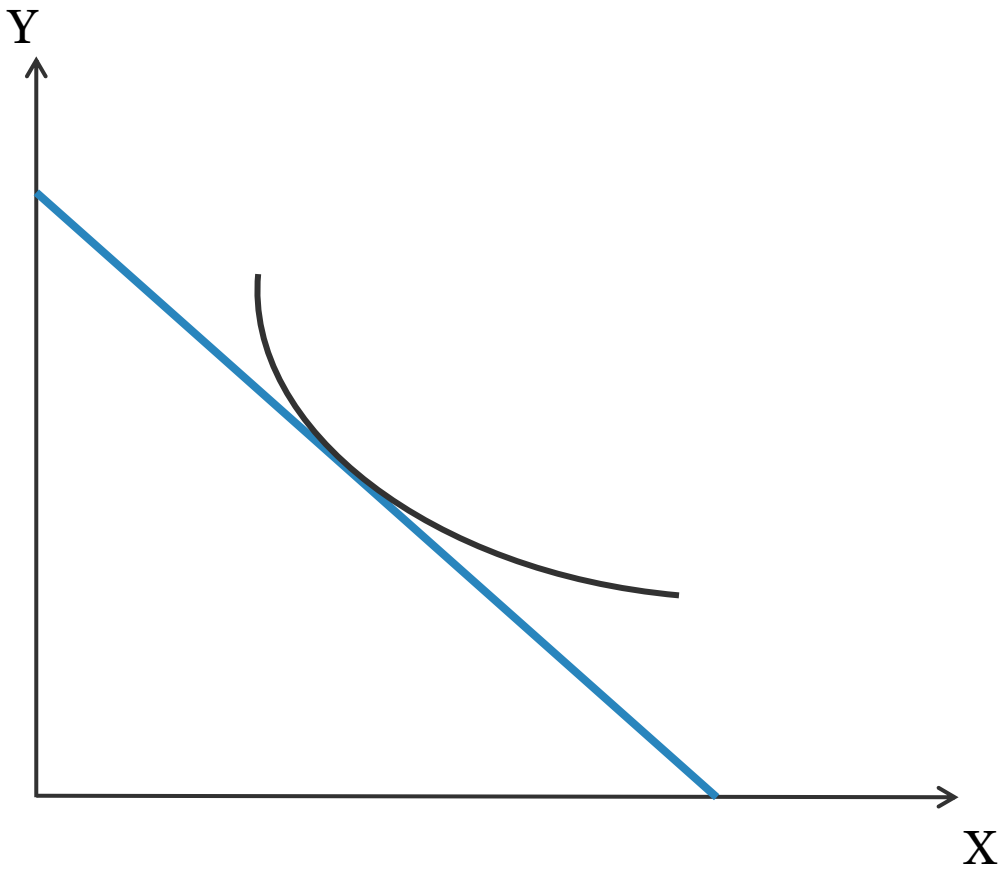
Utility Maximization

- There's infinitely many indifference curves presenting our utility preferences
- We want to be on the highest one that we can afford



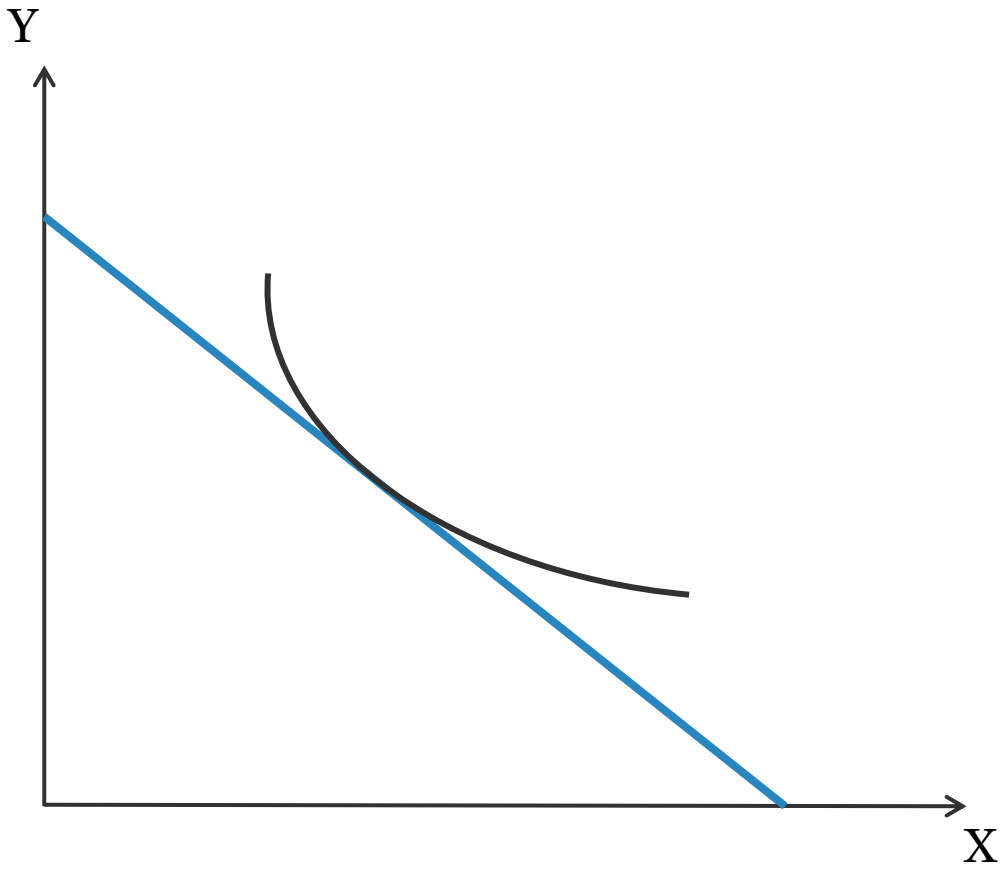
Tangency Condition

- We maximize utility by being on the highest affordable indifference curve.
- Highest affordable indifference curve is which goes out as high as possible but still touches (tangent) to the budget constraint.
- Mathematically, a point of tangency is where the slope of the curve and slope of the line are equal.



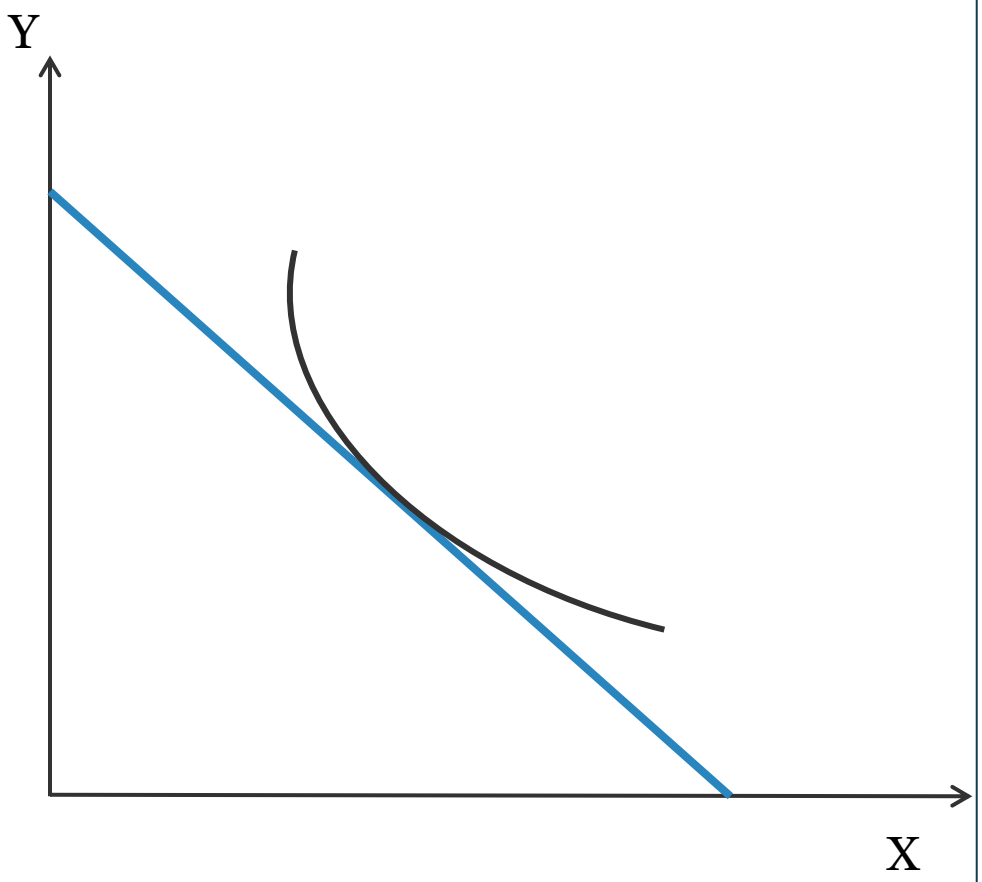
MRS equal to Price Ratio

- Recall the slopes from previous tutorials.
- Slope of budget constraint
- Slope of IC curve
- At maximization, these have to be equal



Example

- Suppose $I = \$100, P_x = 1, P_y = 1$
- $U(x, y) = \sqrt{xy} = x^{\frac{1}{2}} y^{\frac{1}{2}}$



Other types of preferences

- Suppose $I = \$100, P_x = 1, P_y = 1$
- $U(x, y) = \min\{x, y\}$
- $U(x, y) = x + y$
- $U(x, y) = \ln(x) + y$
- $U(x, y) = \sqrt{x} + 2y$

THANK YOU!

ECONTUTORS

SPECIALISTS IN ECONOMICS

Like ♦ Comment ♦ Subscribe