Properties of Indifference Curve

1) Indifference curves are downward sloping.

The slope of an indifference curve is downward sloping. Because in order to get the same satisfaction or to be equally happy, if a consumer wants to increase the goods so he must have to decrease the consumption of other good.

2) Indifference curves are bowed inward (Convex Shape)

The shape of an indifference curve is depends upon the marginal rate of substitution— the rate at which the consumer is willing to trade off (sacrifice) one good for the other. The marginal rate of substitution between two goods is diminishing, therefore Shape of an Indifference curve is Convex.

If MRS increases – IC (Concave Shape)
If MRS Constant – IC (Straight line downward slope)

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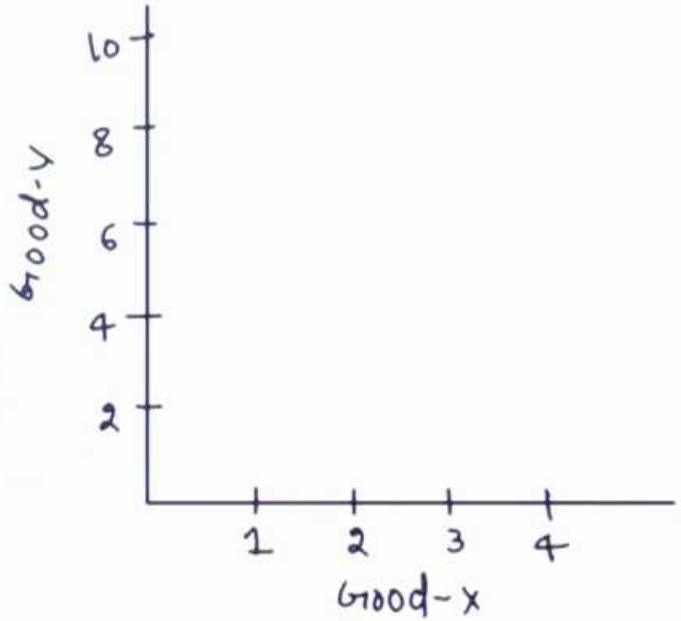
(a) Diminishing MRS_{xy}

Comb.	Good-x		Good-y		$MRS = \frac{\Delta y}{\Delta x}$
A	1	+1	10	-3	
B	2		7		3/1 = 3
C	3	+1	5	-2	2/1 = 2
D	4	+1	4	-1	1/1 = 1



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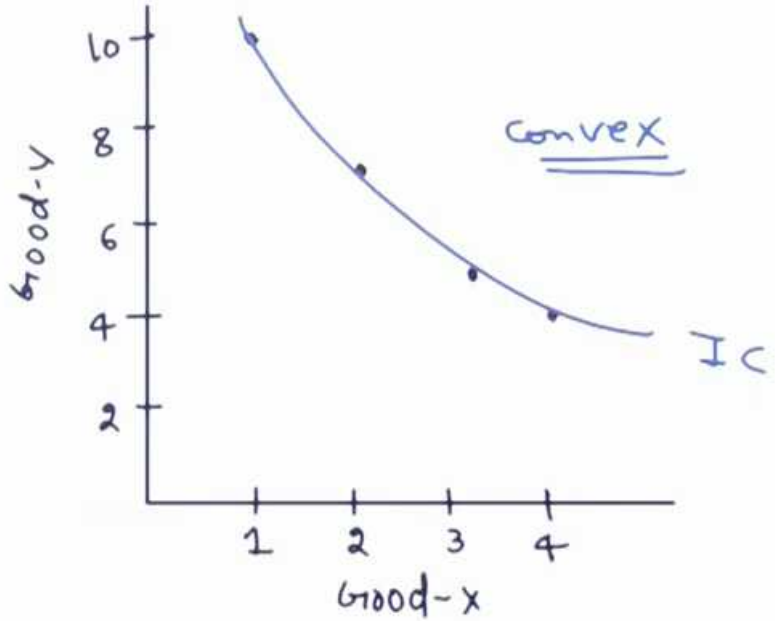
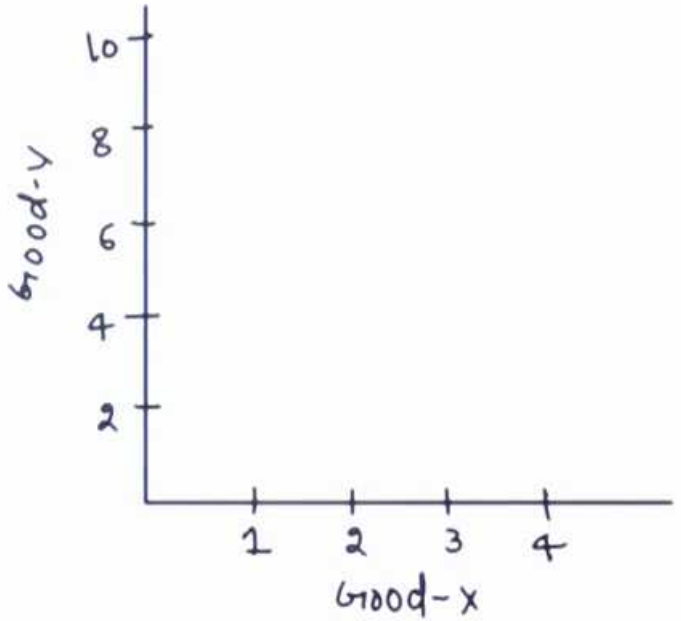


(b) Increasing MRSxy

Comb	Good-x		Good-Y		MRS = S/S
A	1	+1	10	-1	—
B	2	+1	9	-2	1/1 = 1
C	3	+1	7	-3	2/1 = 2
D	4		4		3/1 = 3



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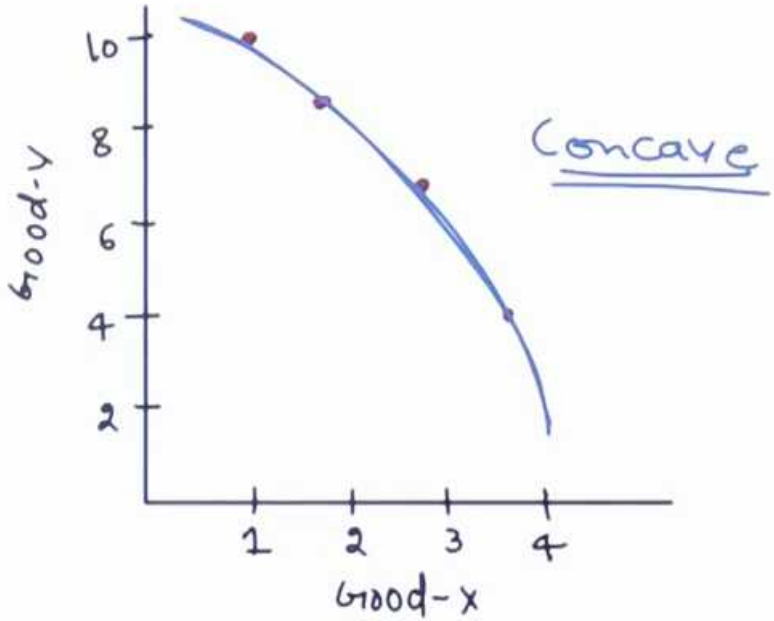
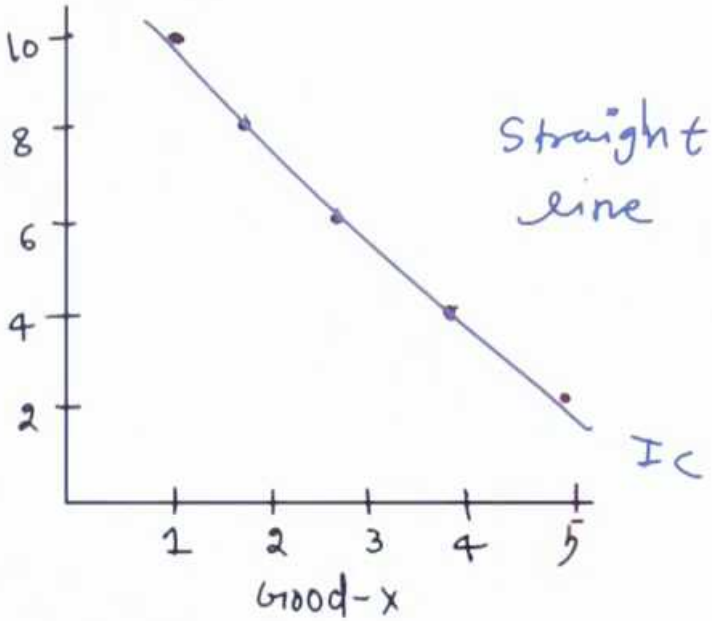


© Constant MRS_{xy}

Comb.	Good-x	Good-y	$MRS = \frac{\Delta y}{\Delta x}$
A	1	10	—
	(+1)	(−2)	
B	2	8	2/1 = (2)
	(+1)	(−2)	
C	3	6	2/1 = (2)
	(+1)	(−2)	
D	4	4	2/1 = (2)
	(+1)	(−2)	
E	5	2	2/1 = (2)



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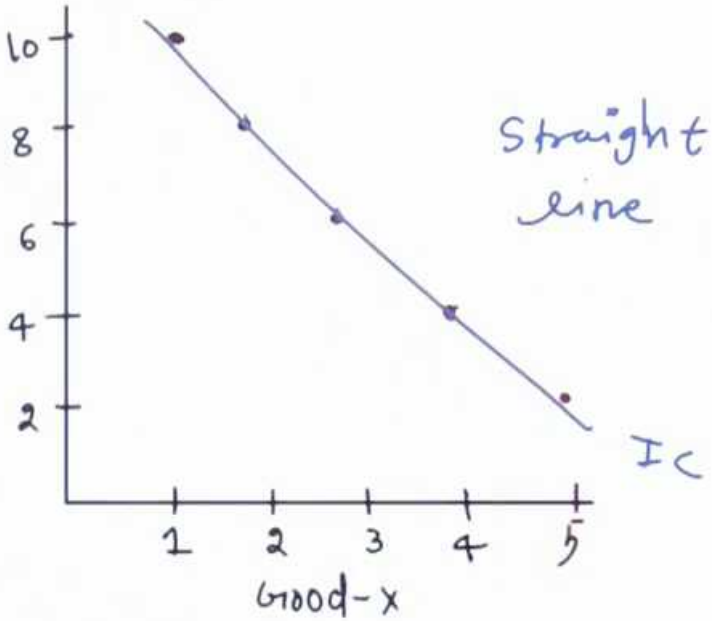
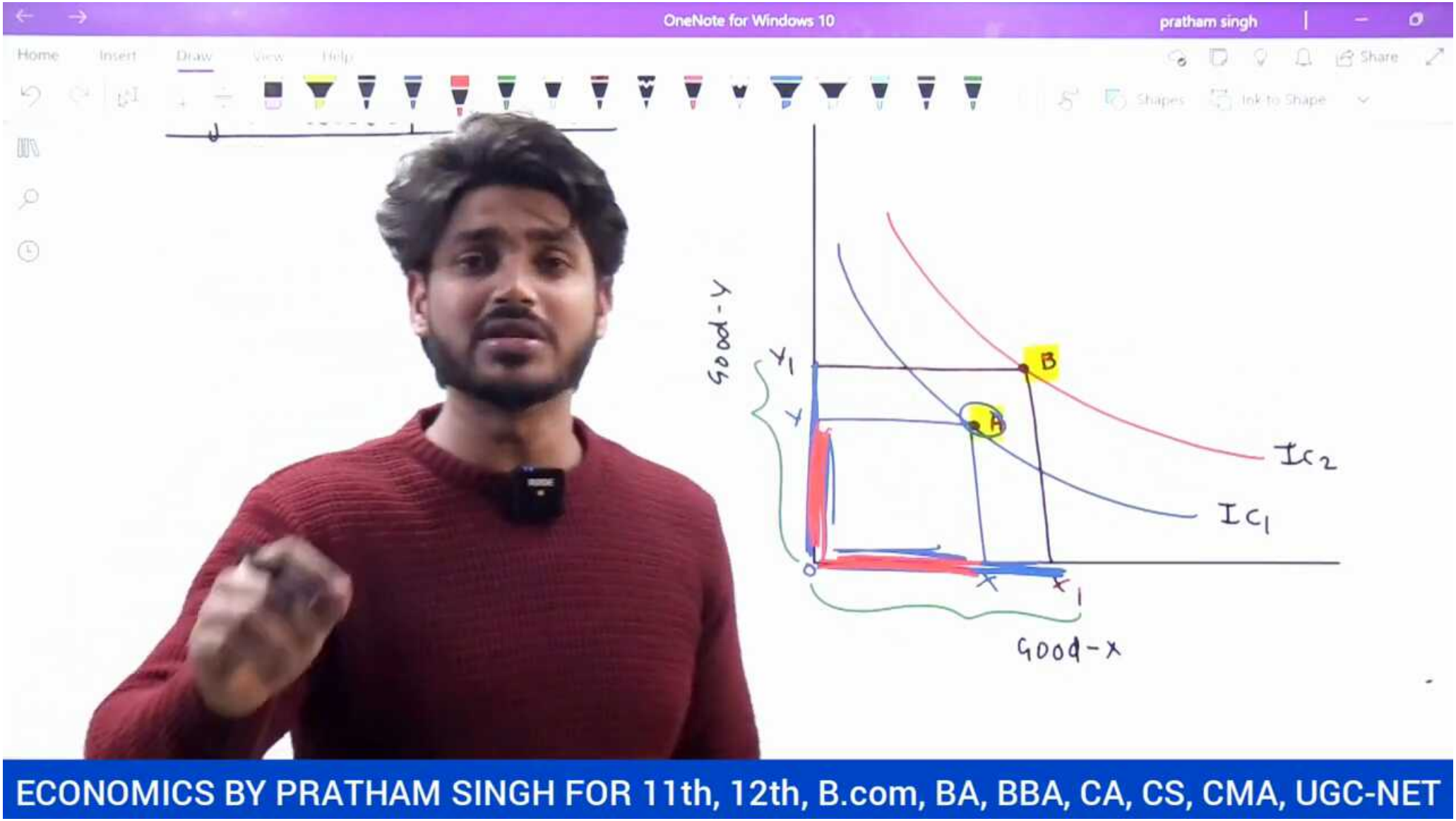


3) Higher indifference curve shows higher level of satisfaction

Higher indifference curve shows always higher level of satisfaction as compared to lower indifference curve. Combination on higher indifference curve will be preferred to the combination which lie on lower indifference curve. Because higher combination provide more of quantity of good than lower combination.

4) Indifference curves cannot intersects each other

Indifference curve cannot intersects each other, because two indifference curve never shows same level of satisfaction. Higher indifference curve shows always higher level of satisfaction as compared to lower indifference curve.



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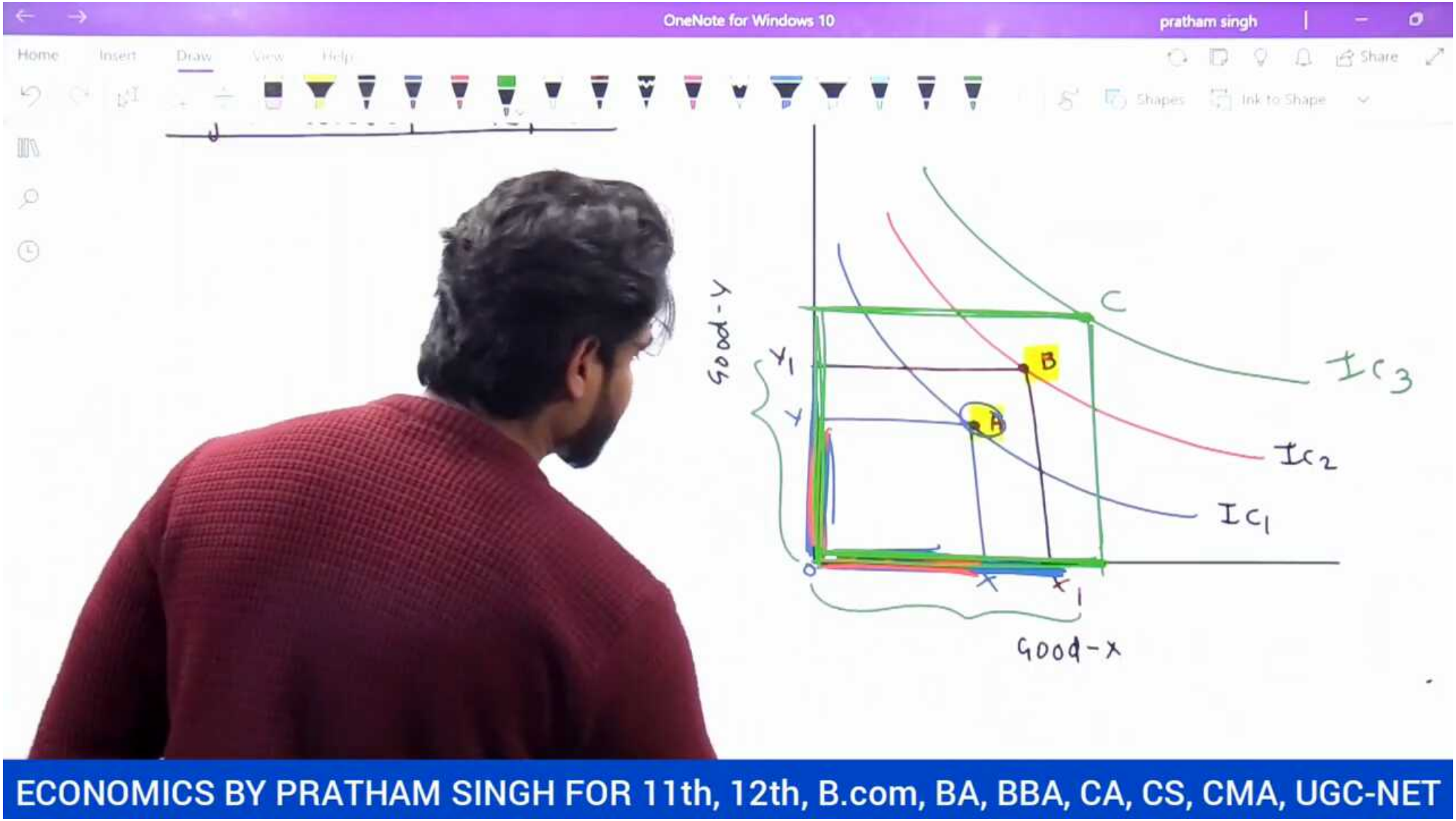
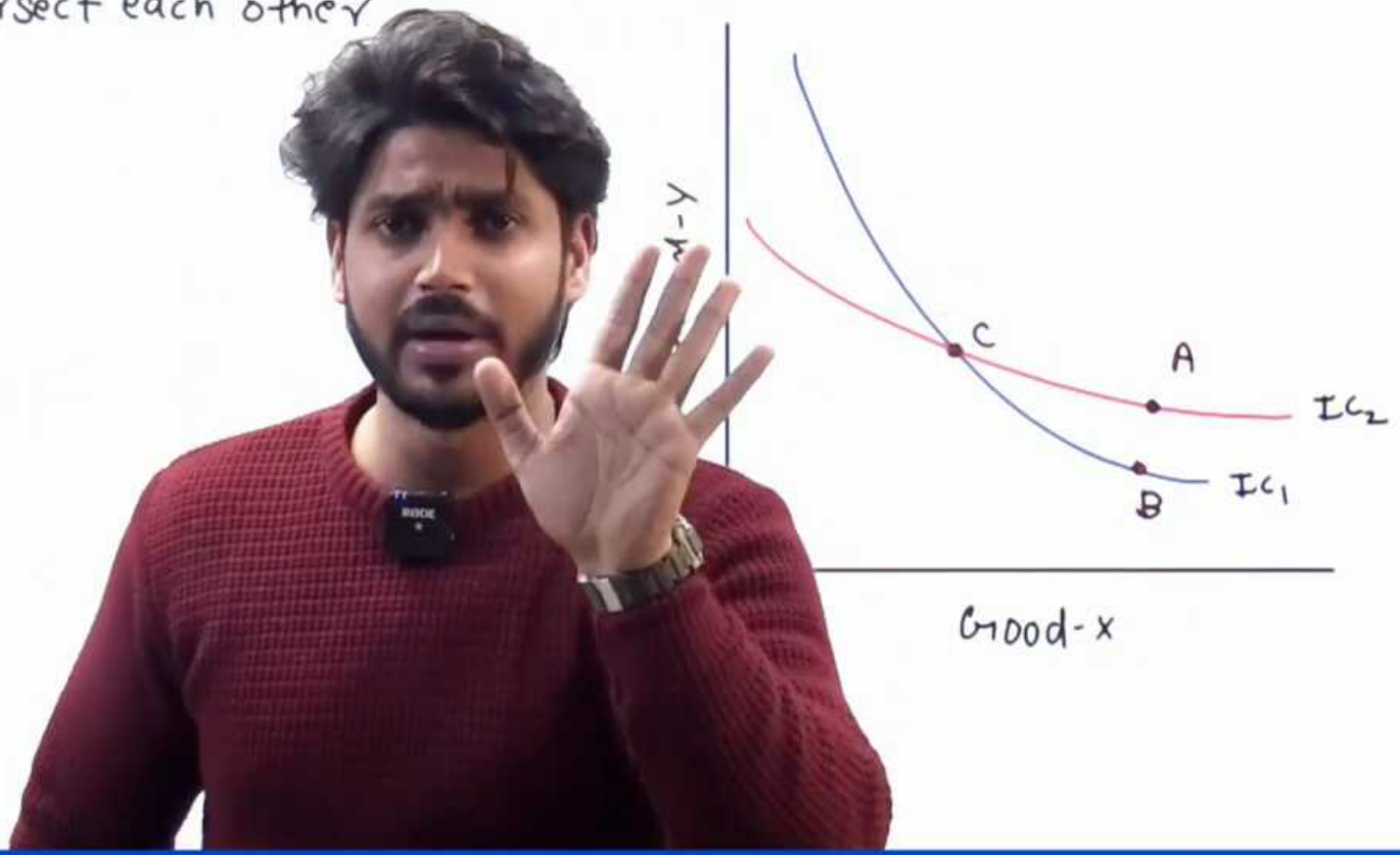


Two Indifference Curve never Intersect each other



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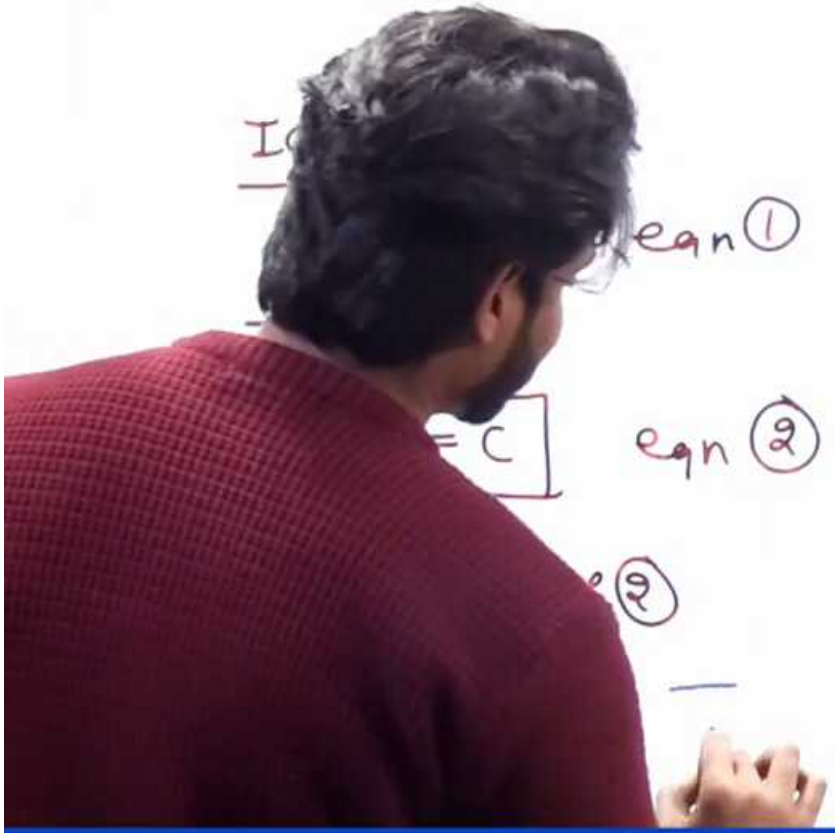

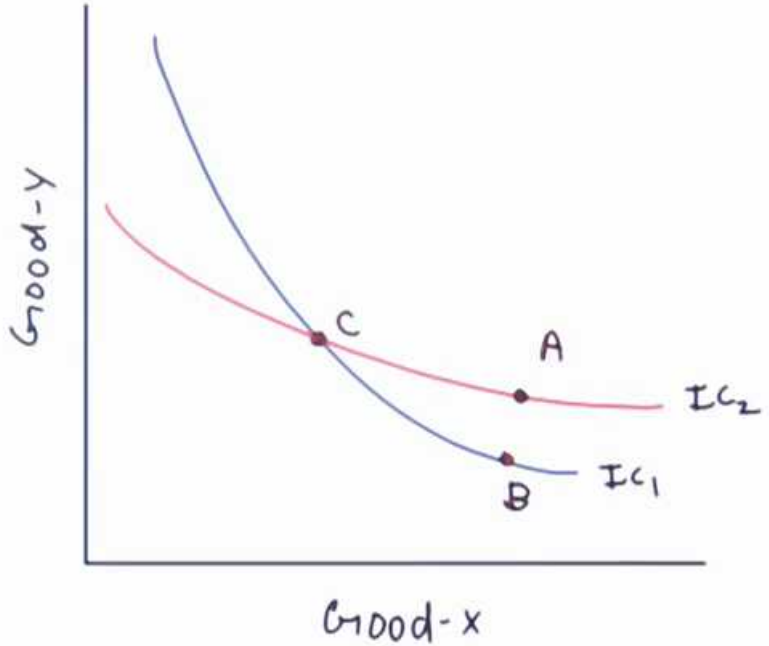

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Two Indifference Curve never Intersect each other

IC_1

$B = C$ eqn (1)

IC_2

$A = C$ eqn (2)

from eqn (1) & (2)

$B = A$ Impossible