

L16Q1	Use the IV plots above to estimate the value of β .	50			
L16Q2	What is β and $V_{ce,sat}$?	$\beta \sim 100$ and $V_{ce,sat} \sim 0.3V$			
L16Q3	What is V_{cc} ?	6 V			
L16Q4	What is R_c ?	1.5 k Ω	1500	Ω	
L16Q5	What is $I_{c,sat}$?	3.8 mA			
L16Q6	Which I_b results in saturation?	38 μA			
L16Q7	Estimate the operating point (I_c , V_{ce}) when $V_{in} = 1.7V$	$I_c = 20mA$, $V_{ce} = 4.5V$			
L16Q8	What value of V_{in} would drive the transistor to the edge of saturation?	3.1 V			
L16Q9	What value of V_{in} would drive the transistor to the edge of saturation	6.7 V			
L16Q10	How does your answer change if R_b was changed to 60k Ω ?	V_{in} at saturation would increase			
L16Q11	How does your answer change if I_c was changed to 700 Ω ?	V_{in} at saturation would decrease			
L16Q12	Find V_{in} such that $V_{ce}=3V$.	1.96 V			
L16Q13	Choose R_b such that the BJT is driven to the edge of saturation	50 k Ω	50000	Ω	