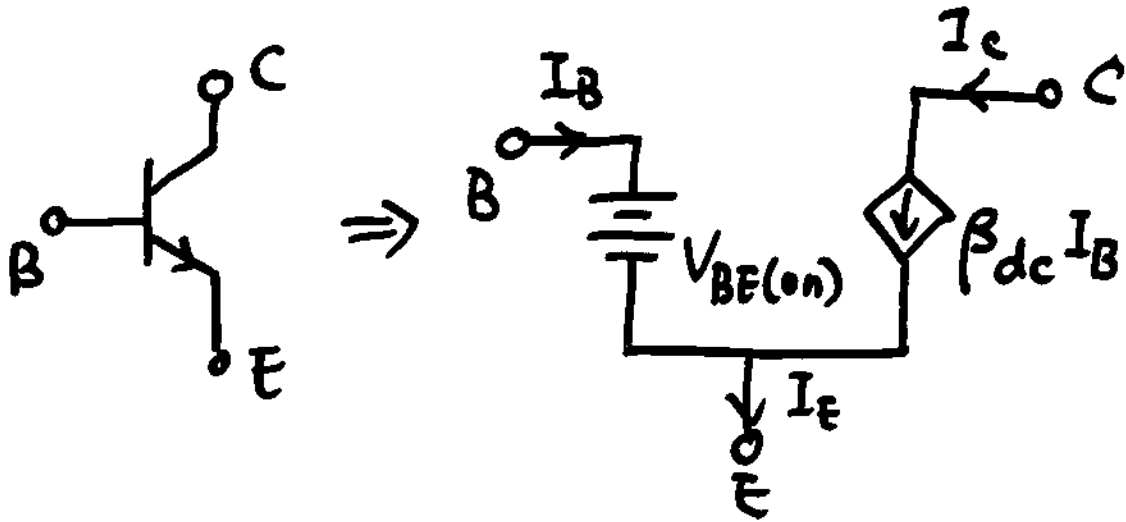
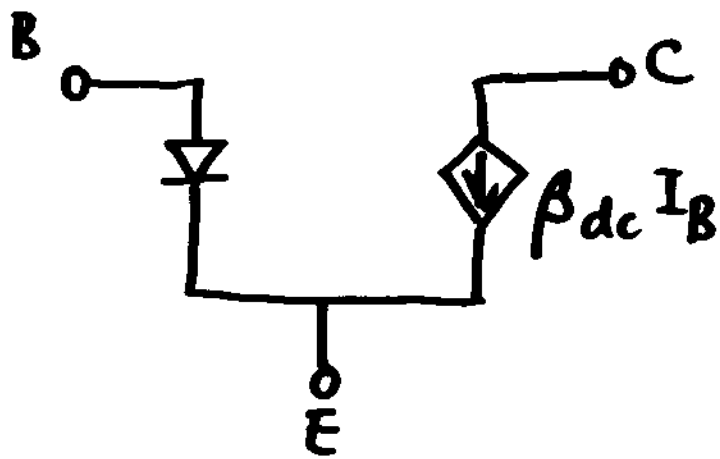


Active state BJT model

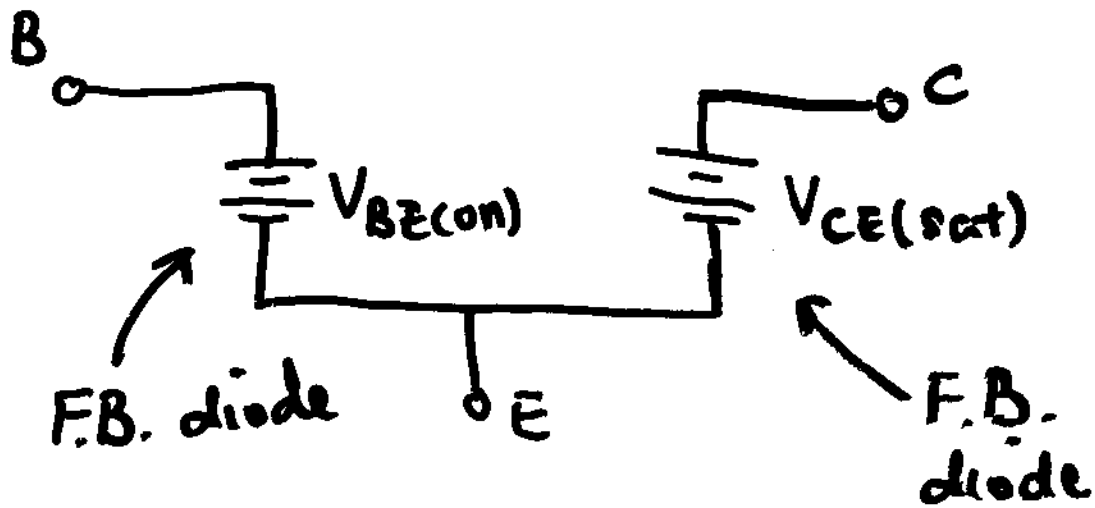


⇓

↗ Assume piece-wise constant model for diode

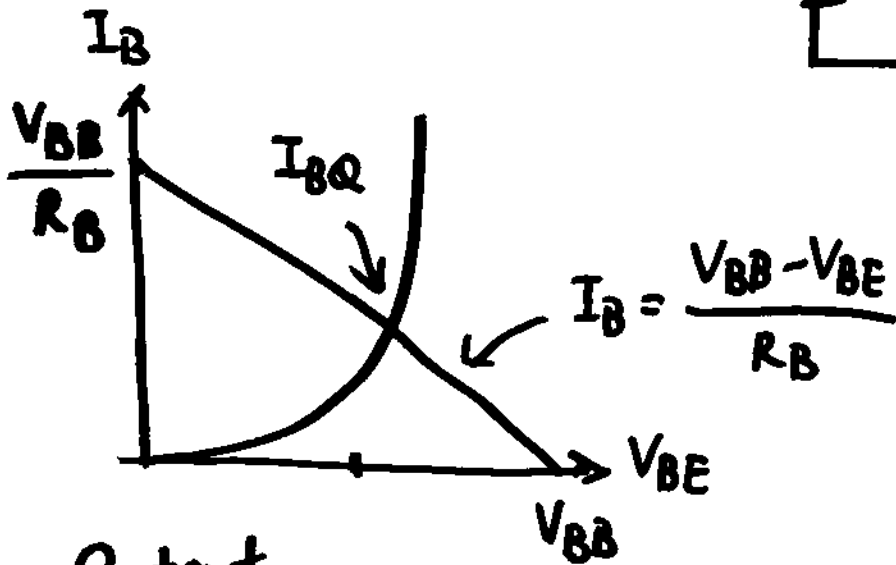
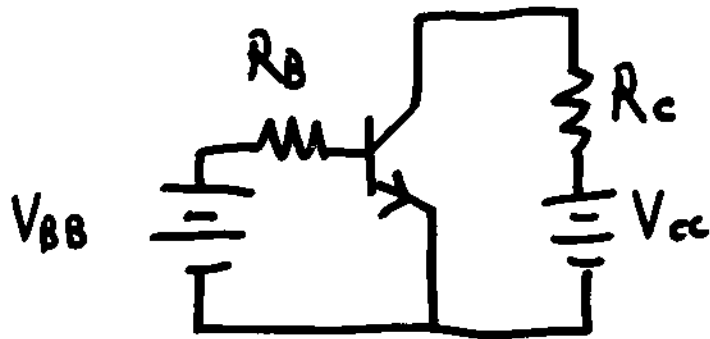


In Saturation

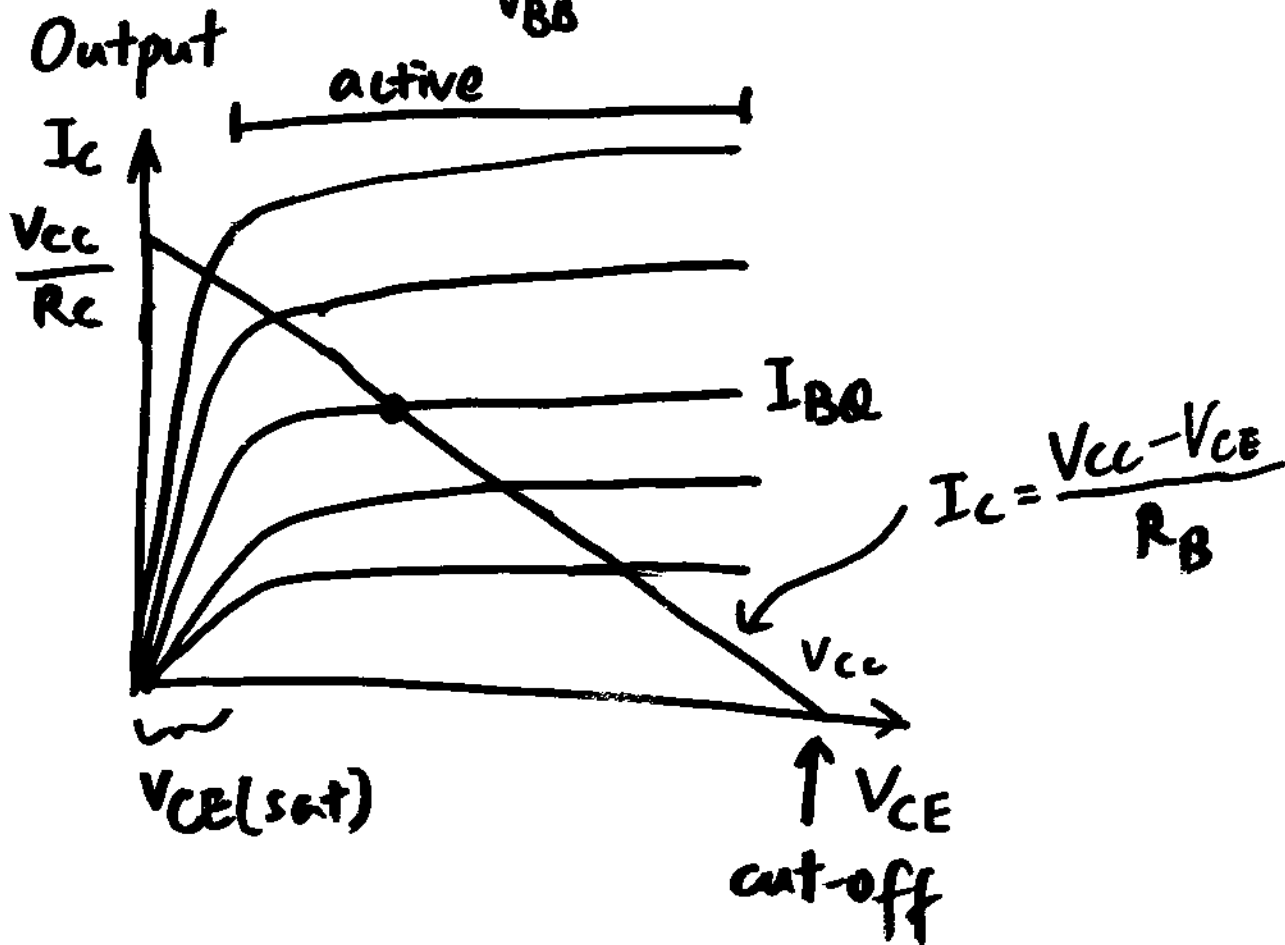


Load line

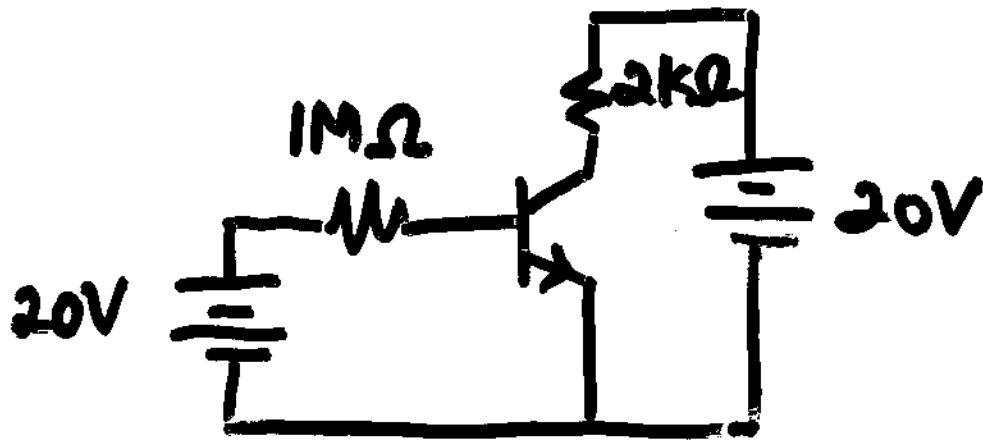
Input



Output

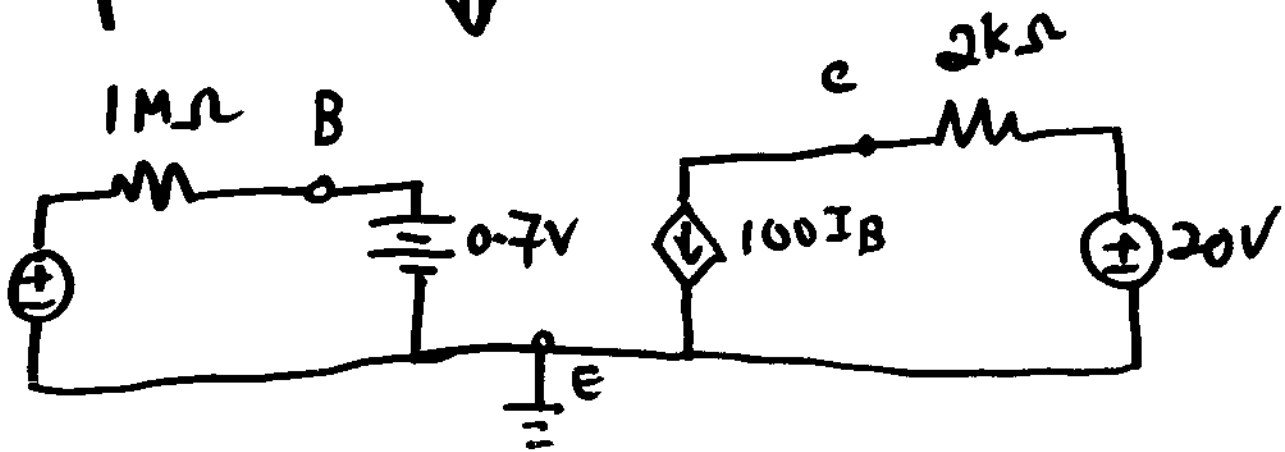


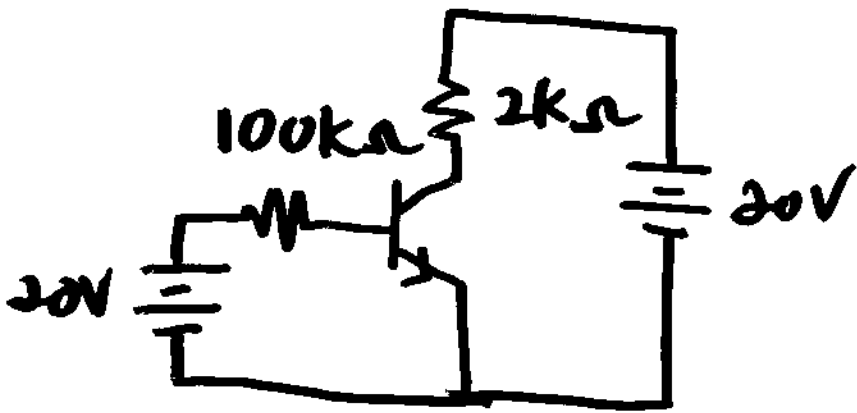
CE Circuit



$$V_{BE(\text{on})} = 0.7\text{V}$$

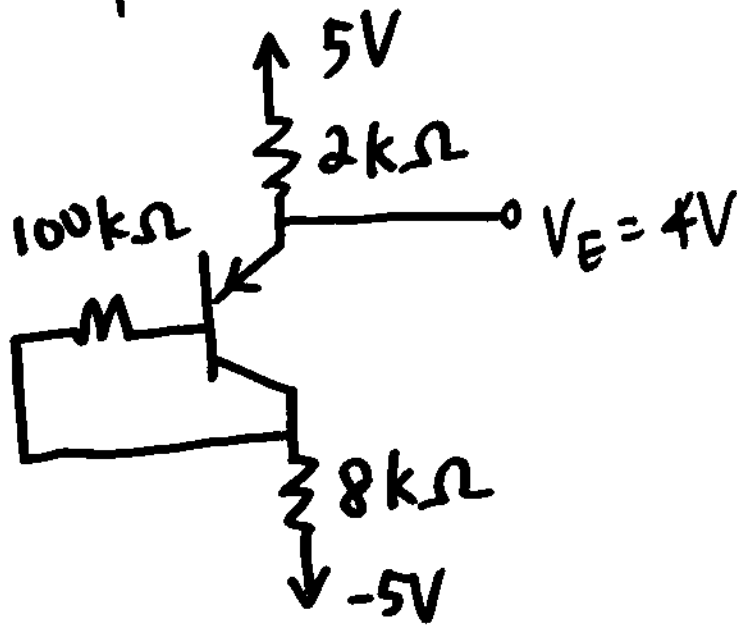
$$\beta_{dc} = 100$$





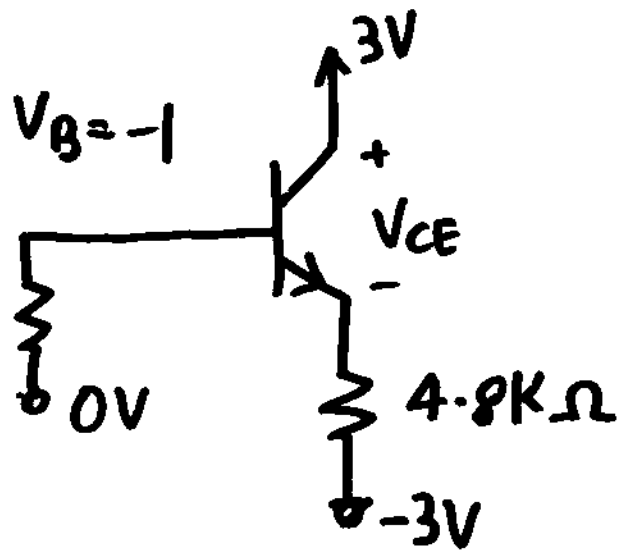
Active or Saturation?

PNP example



Find α
 β
 V_{CE}
 I_c
 V_c

$$V_{BE(on)} = 0.7V$$



Find	I_C
	V_{CE}
	α
	β