

For the *pn*p transistor circuit shown, calculate  $i_C$  and  $v_{CE}$  for  $V_{BB} = 9.5$  V, 7 V, and 3 V. For the transistor,  $\beta_F = 75$ .

$V_{BB} = 9.5$  V:  $i_C =$  \_\_\_\_\_  $v_{CE} =$  \_\_\_\_\_

$V_{BB} = 7$  V:  $i_C =$  \_\_\_\_\_  $v_{CE} =$  \_\_\_\_\_

$V_{BB} = 3$  V:  $i_C =$  \_\_\_\_\_  $v_{CE} =$  \_\_\_\_\_

