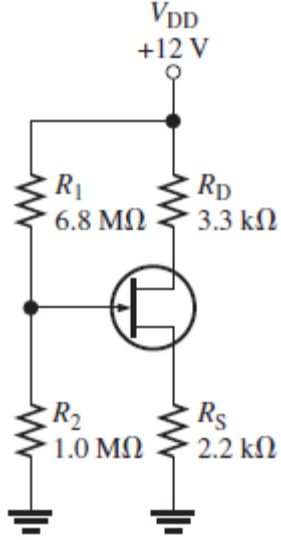


# Electronic Circuits II - Tutorial 04

#	Question	Answer
1	 <p>If the value of <math>R_D</math> in Figure is increased, <math>I_D</math> will  <b>(a) increase (b) decrease (c) not change</b></p>	b
2	<p>For a certain <math>p</math>-channel JFET, <math>V_{GS(off)} = 8</math> V. The value of <math>V_{GS}</math> for an approximate midpoint bias is  <b>(a) 4 V (b) 0 V (c) 1.25 V (d) 2.34 V</b></p>	d
3	<p>The drain-to-source resistance in the ohmic region depends on  <b>(a) <math>V_{GS}</math> (b) the Q-point values (c) the slope of the curve at the Q-point (d) all of these</b></p>	d





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Q2	For a particular JFET, $g_{m0} = 3200 \mu\text{S}$ . What is $g_m$ when $V_{GS} = -4 \text{ V}$ , given that $V_{GS(\text{off})} = -8 \text{ V}$ ?
Sol 2	..... .....



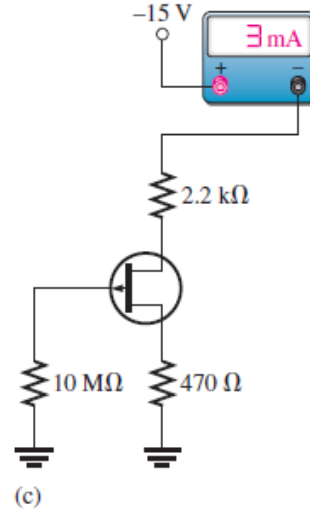
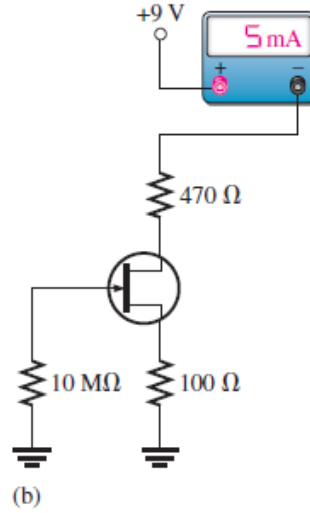
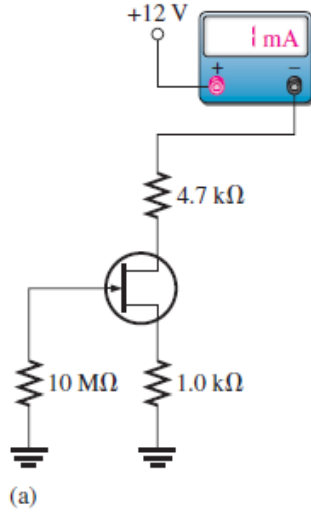






Q6

For each circuit in Figure , determine  $V_{DS}$  and  $V_{GS}$ .



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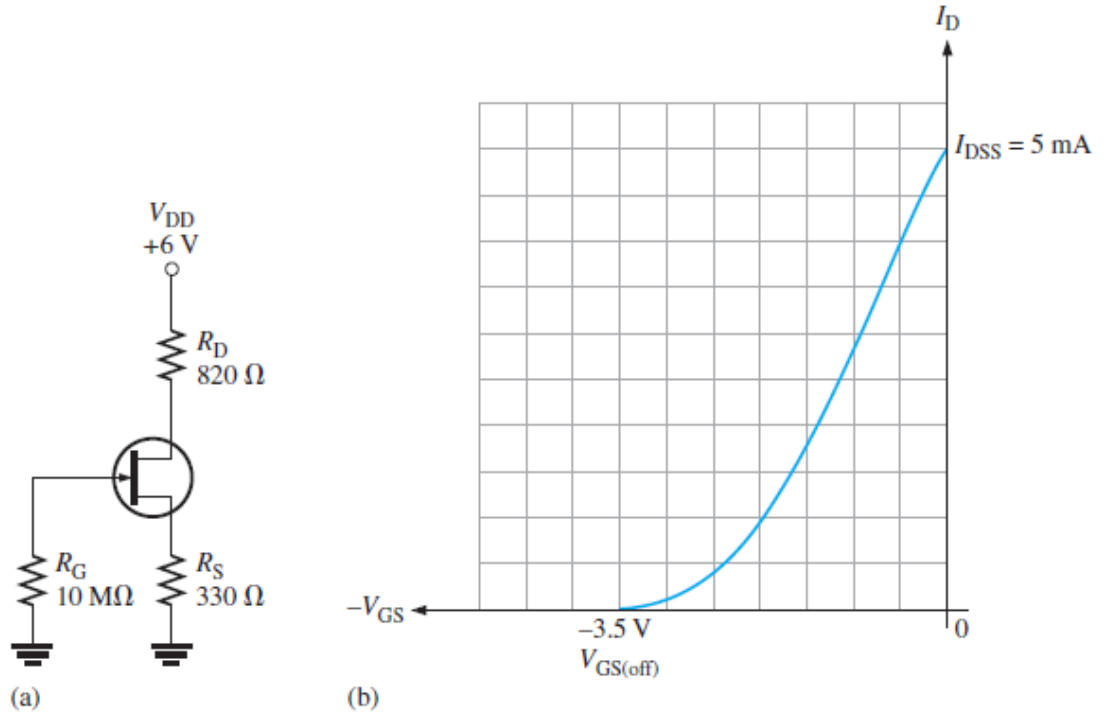






Q  
8

Graphically determine the Q-point for the circuit in Figure (a) using the transfer characteristic curve in Figure (b).



So  
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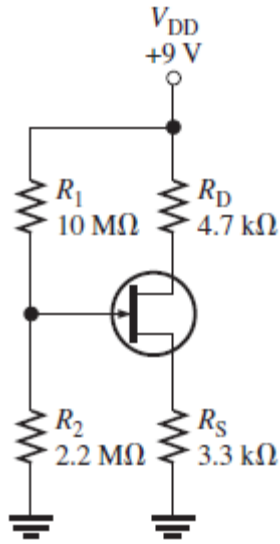


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Q9



Given that the drain-to-ground voltage in Figure is 5 V, determine the Q-point of the circuit.

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A large rectangular area with a vertical margin on the left and horizontal dotted lines for writing.



