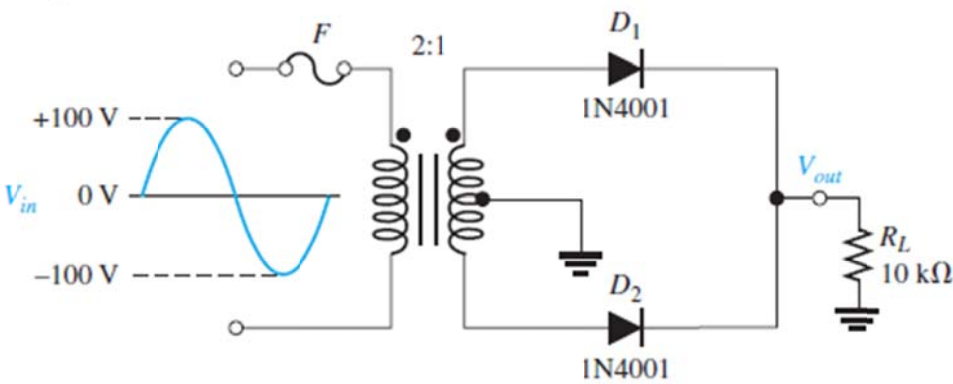


# Electronic Circuits I - Tutorial 04

## Diode Applications 2

#	Question	
1	Each diode in a full-wave rectifier conducts for the entire input cycle.	F

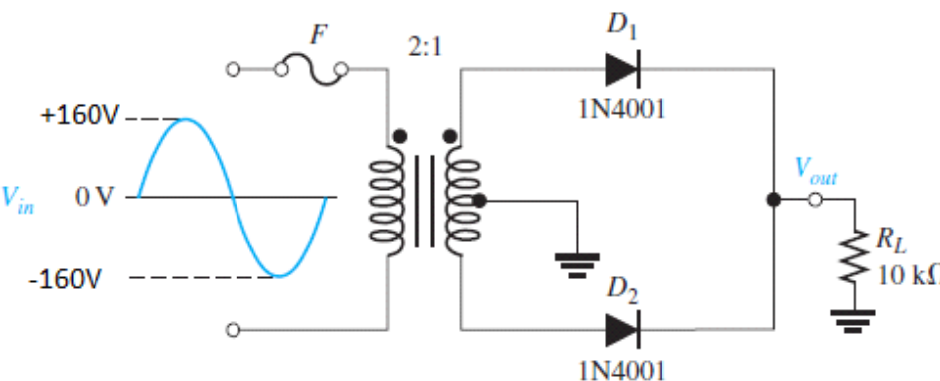
MCQ1

#	Question	
1	<p>If the frequency of the input voltage in Figure 2-36 is increased, the output voltage will</p>  <p>(a) increase (b) decrease (c) not change</p>	c

MCQ 2

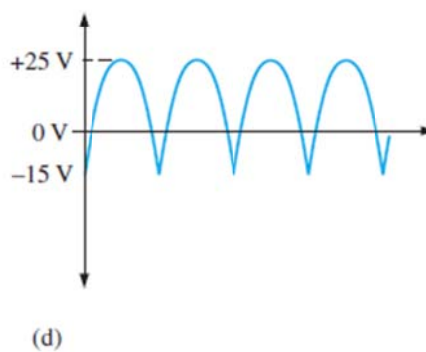
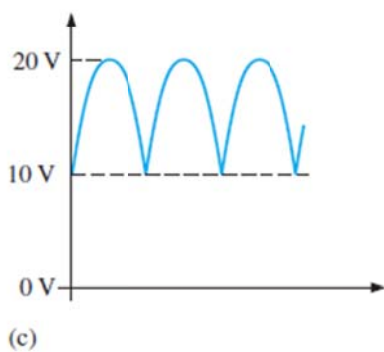
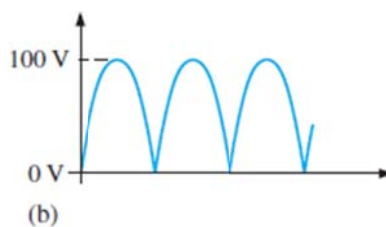
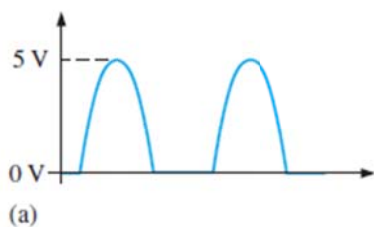
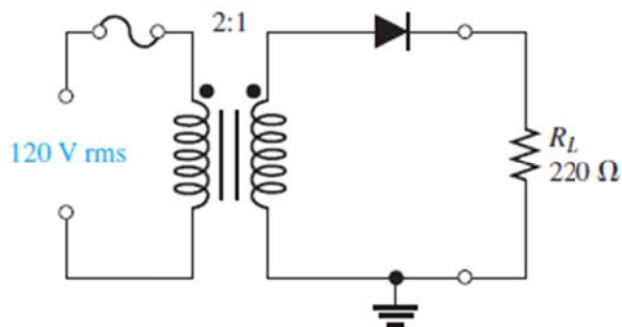
#	Question	Answer
1	The average value of a full-wave rectified voltage with a peak value of 75 V is (a) 53 V (b) 47.8 V (c) 37.5 V (d) 23.9 V	b
2	The total secondary voltage in a center-tapped full-wave rectifier is 125 V rms. Neglecting the diode drop, the rms output voltage is (a) 125 V (b) 177 V (c) 100 V (d) 62.5 V	d

Problems

<p>Problem 1</p>	<p>What diode PIV rating is required to handle a peak input of 160 V in Figure 2-36?</p> 
<p>Answer 1</p>	<p>79.3 V including diode drop</p>

<p>Q2</p>	<p>A power-supply transformer has a turns ratio of 5:1. What is the secondary voltage if the primary is connected to a 120 V rms source?</p>
<p>Sol 2</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Q3 Find the average value of each voltage in Figure

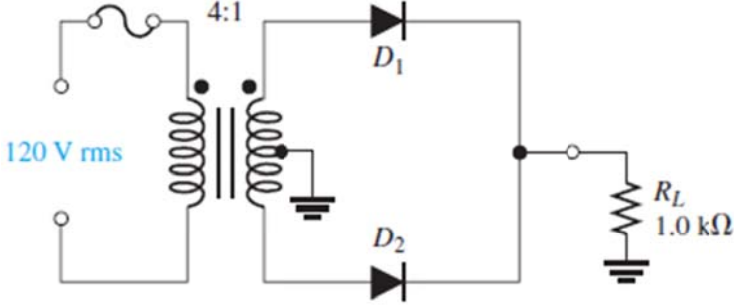


Sol 3

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<p>Q4</p>	<p>Calculate the peak voltage across each half of a center-tapped transformer used in a full-wave rectifier that has an average output voltage of 120 V.</p> 
<p>Sol 4</p>	<p>.....</p> <div style="border: 1px solid black; width: 400px; height: 40px; margin: 0 auto;"></div> <p>.....</p> <p>.....</p>