This homework is due at the beginning of class on November 14, 2011.

Name: 

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible</th>
<th>Score</th>
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</thead>
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<tr>
<td>1</td>
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<tr>
<td>2</td>
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<tr>
<td>Total</td>
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</tbody>
</table>
1. Consider the bridged Ethernet shown below.

![Diagram of bridged Ethernet]

Example:

```
B0
X
```

Indicate which ports are blocked by the bridge spanning tree protocol by putting an X over the corresponding ports. The bridge IDs are the numeric values.

(15 pts)
2. Consider another bridged Ethernet shown below. Assume the spanning tree protocol has already finished its computations. The ports not selected by the spanning tree protocol are marked by X. The ports of bridge B2 are labeled p1, p2, p3 respectively. There are 4 computers H1, H2, H3, and H4 in the network. Assume the forwarding tables of all bridges are currently empty. Suppose H1 transmits a single packet addressed to H3, and H2 transmits a single packet addressed to H4.

The questions on the next page refer to this diagram.
2a. Explain how the Ethernet bridges forward these two packets and how they learn forwarding table entries.  

2b. After the transmissions of the two packets have been completed and the network is idle, what is the content of the forwarding table at bridge B2?