26. a) The sufficient condition is the hypothesis: If you bought the computer less than a year ago, then the warranty is good.
   b) If Willy cheats, then he gets caught.
   c) The “only if” condition is the conclusion: If you access the website, then you must pay a subscription fee.
   d) If you know the right people, then you will be elected.
   e) If Carol is on a boat, then she gets seasick.

24. a) If I am to remember to send you the address, then you will have to send me an e-mail message. (This has been slightly reworded so that the tenses make more sense.)
   b) If you were born in the United States, then you are a citizen of this country.
   c) If you keep your textbook, then it will be a useful reference in your future courses. (The word “then” is understood in English, even if omitted.)
   d) If their goaltender plays well, then the Red Wings will win the Stanley Cup.
   e) If you get the job, then you had the best credentials.
   f) If there is a storm, then the beach erodes.
   g) If you log on to the server, then you have a valid password.
   h) If you do not begin your climb too late, then you will reach the summit.

26. a) You will get an A in this course if and only if you learn how to solve discrete mathematics problems.
   b) You will be informed if and only if you read the newspaper every day. (It sounds better in this order; it would be logically equivalent to state this as “You read the newspaper every day if and only if you will be informed.”)
   c) It rains if and only if it is a weekend day.
   d) You can see the wizard if and only if he is not in.

28. a) Converse: If I stay home, then it will snow tonight. Contrapositive: If I do not stay at home, then it will not snow tonight. Inverse: If it does not snow tonight, then I will not stay home.
   b) Converse: Whenever I go to the beach, it is a sunny summer day. Contrapositive: Whenever I do not go to the beach, it is not a sunny summer day. Inverse: Whenever it is not a sunny day, I do not go to the beach.
   c) Converse: If I sleep until noon, then I stayed up late. Contrapositive: If I do not sleep until noon, then I did not stay up late. Inverse: If I don’t stay up late, then I don’t sleep until noon.

30. A truth table will need $2^n$ rows if there are $n$ variables.
   a) $2^2 = 4$  b) $2^3 = 8$  c) $2^6 = 64$  d) $2^5 = 32$

32. To construct the truth table for a compound proposition, we work from the inside out. In each case, we will show the intermediate steps. In part (d), for example, we first construct the truth tables for $p \land q$ and for $p \lor q$ and combine them to get the truth table for $(p \land q) \rightarrow (p \lor q)$. For parts (a) and (b) we have the following table (column three for part (a), column four for part (b)).

<table>
<thead>
<tr>
<th>$p$</th>
<th>$\neg p$</th>
<th>$p \rightarrow \neg p$</th>
<th>$p \leftrightarrow \neg p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>F</td>
<td>T</td>
<td>T</td>
<td>F</td>
</tr>
</tbody>
</table>

For parts (c) and (d) we have the following table.

<table>
<thead>
<tr>
<th>$p$</th>
<th>$q$</th>
<th>$p \lor q$</th>
<th>$p \land q$</th>
<th>$p \oplus (p \lor q)$</th>
<th>$(p \land q) \rightarrow (p \lor q)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>T</td>
<td>T</td>
<td>T</td>
<td>F</td>
<td>T</td>
</tr>
<tr>
<td>T</td>
<td>F</td>
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<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>T</td>
</tr>
</tbody>
</table>