Quiz #2 Sample Solutions

a. We'll assume the following definitions:
S : the set of CSC 165 students
$P(x)$: student x is a perfectionist
$Q(x)$: student x is quiet

We then write (1) as: $\forall x \in S, P(x) \Rightarrow Q(x)$
(answers may vary, but should be similar to this)
(we'll accept something like $\forall x \in S, x \in P \Rightarrow x \in Q$ for this quiz, but write a comment that they should use predicate notation)

b. The Venn diagram should have two intersecting circles, labelled P and Q, inside a rectangle labelled S. The shaded region should be the part of P outside Q (P and not Q)

c. Trivial once you do (d): We know Richard is not a perfectionist, since if he was, he would have to be quiet from (1), which he is not.

d. Something like: Students who are not quiet are not perfectionists. Anything that gets this idea across (and is logically equivalent) is fine.