

### Feb 3 Worksheet

1. Compare and discuss your solutions to the “phone number problem”.
  2. Choose one of these problems to work out and compare with each other:
- B.** Decide whether or not the following pairs of statements are logically equivalent.
- |   |  |
|---|--|
| <b>9.</b> $P \wedge Q$ and $\sim(\sim P \vee \sim Q)$                             | <b>12.</b> $\sim(P \Rightarrow Q)$ and $P \wedge \sim Q$                           |
| <b>10.</b> $(P \Rightarrow Q) \vee R$ and $\sim((P \wedge \sim Q) \wedge \sim R)$ | <b>13.</b> $P \vee (Q \wedge R)$ and $(P \vee Q) \wedge R$                         |
| <b>11.</b> $(\sim P) \wedge (P \Rightarrow Q)$ and $\sim(Q \Rightarrow P)$        | <b>14.</b> $P \wedge (Q \vee \sim Q)$ and $(\sim P) \Rightarrow (Q \wedge \sim Q)$ |