

1-

$$|R \cup B \cup G| = |R| + |B| + |G| - |R \cap B| - |R \cap G| - |B \cap G| + |R \cap B \cap G|$$

$$86 = 40 + 30 + 30 - 5 - 7 - 10 + x$$

$$86 = 78 + x$$

$$x = 86 - 78 = 8$$

2-

$$P(\text{First card is a spade}) = 13/52$$

$$P(\text{Second card is a spade}) = 12/51$$

$$13/52 * 12/51$$

3-

$$0.8 \times 0.4 = 0.32$$

4-

5-

First is red, then second is red

$$5/15 * 4/14 = 20/210$$

First is black, then second is red

$$10/15$$

$$5/14$$

$$10/15 * 5/14 = 50/210$$

Add them

$$20/210 + 50/210 =$$

$$1/3 = 33.3\%$$