

Suppose two cards are drawn at random from a standard deck of playing cards with replacement. Find the probability of each event.

1. The first card is a heart and the second card is a black card.

$$\frac{1}{8} = .125$$

2. The first card is a red face card or the ace of clubs.

$$\frac{7}{52} = .135$$

3. Both cards are diamonds.

$$\frac{1}{16} = .0625$$

4. The first card is a diamond and the second card is not a diamond.

$$\frac{3}{16} = .1875$$

5. At least one of the cards is a face card.

$$\frac{69}{169} = .408$$

6. Exactly one of the two cards is a face card.

$$\frac{60}{169} = .355$$

7. The first card is a 10 or the second card is a spade.

$$\frac{4}{13} = .307$$

8. The first card is a red card or a queen.

$$\frac{7}{13} = .538$$

9. The first card is at least a 4 (aces are high).

$$\frac{11}{13} = .846$$

10. The second card is a spade or an ace.

$$\frac{4}{13} = .307$$

AND: p. 871 VOCAB #1-8, #27-37 ODD, 41-55 ODD