

Name: \_\_\_\_\_

### Mutually Exclusive and Inclusive Events Homework

*A card is drawn at random from a 52-card deck. Tell whether events A and B are mutually exclusive or mutually inclusive. Then find  $P(A \text{ or } B)$ .*

- 1) A: The card is a heart; B: The card is an 8.
- 2) A: The card is a number less than 5; B: The card is a jack, queen, or king.
- 3) A: The card is black; B: The card is a number greater than 4.
- 4) A: The card is not a diamond; B: The card is a spade.
- 5) A: The card is red; B: The card is the ace of spades.
- 6) A: The card is a 2 or 3; B: The card is not a heart.

*A spinner is divided into 8 congruent regions labeled 1 through 8. The spinner is spun once. Find the probability of each event.*

- 7) The number is even or divisible by 3.
- 8) The number is odd or greater than 7.
- 9) The number is less than 2 or greater than 6.
- 10) The number is odd or divisible by 4.

*Two dice are rolled and the numbers of the top faces are added. The table shows the possible outcomes. Find each probability.*

- 11) The sum is odd or greater than 11.
- 12) The sum is greater than 10 or less than 6.
- 13) The sum is even or less than 5.
- 14) The sum is less than 8 or a multiple of 6.
- 15) The sum is less than 4 or a multiple of 5.

+	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12