Lesson 10.4 Worksheet *Name:* _____

Events *A* and *B* are disjoint. Find $P(A \text{ or } B)$.

1.) $P(A) = 0.3,\ P(B) = 0.1$

2.) $P(A) = 0.41,\ P(B) = 0.24$

3.) $P(A) = \frac{1}{3},\ P(B) = \frac{1}{4}$

4.) $P(A) = \frac{2}{3},\ P(B) = \frac{1}{5}$

Find the indicated probability.

5.) $P(A) = 0.5,\ P(B) = 0.35$
$P(A \text{ and } B) = 0.2$
$P(A \text{ or } B) = ?$

6.) $P(A) = 0.6,\ P(B) = 0.2$
$P(A \text{ and } B) = ?$
$P(A \text{ or } B) = 0.7$

7.) $P(A) = \frac{2}{7},\ P(B) = \frac{4}{7}$
$P(A \text{ and } B) = \frac{1}{7}$
$P(A \text{ or } B) = ?$

8.) $P(A) = \frac{6}{11},\ P(B) = \frac{3}{11}$
$P(A \text{ and } B) = ?$
$P(A \text{ or } B) = \frac{7}{11}$

Find $P(\overline{A})$.

9.) $P(A) = 0.5$

10.) $P(A) = 0$

11.) $P(A) = \frac{5}{8}$

A card is randomly drawn from a standard deck of 52 cards. Find the probability of drawing the given card. Express your probabilities as simplified fractions.

12.) A king *and* a diamond

13.) A king *or* a diamond

14.) A spade *or* a club

15.) A 4 *or* a 5

16.) A 6 *and* a face card

17.) *Not* a heart

Find the indicated probability. State whether *A* and *B* are disjoint or overlapping events.

18.) $P(A) = 0.25$
$P(B) = 0.4$
$P(A \text{ or } B) = 0.5$
$P(A \text{ and } B) = ?$

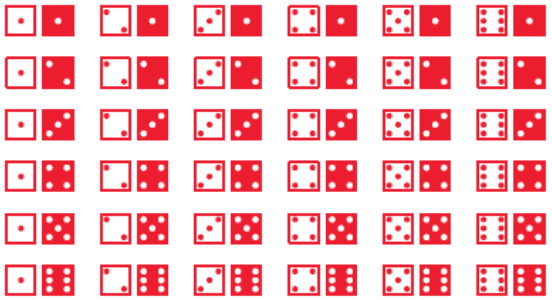
19.) $P(A) = ?$
$P(B) = 0.38$
$P(A \text{ or } B) = 0.65$
$P(A \text{ and } B) = 0$

20.) $P(A) = \frac{8}{15}$
$P(B) = ?$
$P(A \text{ or } B) = \frac{3}{5}$
$P(A \text{ and } B) = \frac{2}{15}$

21.) $P(A) = 16\%$
$P(B) = ?$
$P(A \text{ or } B) = 32\%$
$P(A \text{ and } B) = 8\%$

Two six-sided dice are rolled. Find the probability of the given event.

22.) The sum is 3 or 4.



23.) The sum is not 7.

24.) The sum is greater than or equal to 5.

25.) The sum is less than 8 or greater than 11.

26.) Of the 120 students honored at an academic banquet, 40% won awards for mathematics and 55% won for English. Fourteen of these students won awards for both mathematics and English. One of the 120 students is chosen at random to be interviewed for a newspaper article. What is the probability that the student won an award in mathematics or English?

27.) The organizer of a cast party for a drama club asks each of 6 cast members to bring one item from a list of 10 items. What is the probability that at least 2 of the 6 members bring the same item?