1. A pack of m&ms contains 13 browns, 11 yellows, 10 greens, 13 reds, 15 oranges, and 10 blues. You draw one m&m from the bag.

Find the probability that you draw an orange or a green m&m.

A. The probability of getting an orange or a green m&m is $\frac{11}{24}$.

B. The probability of getting an orange or a green m&m is $\frac{19}{72}$.

C. The probability of getting an orange or a green m&m is $\frac{25}{72}$.

D. The probability of getting an orange or a green m&m is $\frac{1}{3}$.

E. The probability of getting an orange or a green m&m is $\frac{17}{36}$.

F. The probability of getting an orange or a green m&m is $\frac{7}{24}$.

G. The probability of getting an orange or a green m&m is $\frac{4}{9}$.

H. The probability of getting an orange or a green m&m is $\frac{3}{8}$.

2. You roll a six-sided die.

Let A = the event of rolling an even number.
Let B = the event of rolling a prime number.
Let C = the event of rolling an perfect square.

True or False: B and C mutually exclusive.

A. True

B. False

3. In a bag, there are 4 red marbles and 7 green marbles.

The red marbles are marked with the numbers 1, 2, 3, and 4

The green marbles are marked with the numbers 1, 2, 3, 4, 5, 6, and 7.

R = a red marble
G = a green marble
E = an even-numbered marble
O = an odd-numbered marble

The sample space is $S = \{R1, R2, R3, R4, G1, G2, G3, G4, G5, G6, G7\}$. S has 11 outcomes.

What is $P(G \cup O)$?

A. $P(G \cup O) = 0.4545$.

B. $P(G \cup O) = 1.1818$.

C. $P(G \cup O) = 0.5455$.

D. $P(G \cup O) = 1.0909$.

E. $P(G \cup O) = 0.8182$.

F. $P(G \cup O) = 1.2727$.

G. $P(G \cup O) = 0.7273$.

H. $P(G \cup O) = 0.3636$.

4. You roll a six-sided die.

Let A = the event of rolling an even number.
Let B = the event of rolling a prime number.
Let C = the event of rolling an odd number.

True or False: A and C mutually exclusive.

A. True

B. False

5. A box has two marbles, one white and one red. We select one marble, put it back in the box, and select a second marble (sampling with replacement). Consider the following events:

Let F = the event of getting the white marble twice.
Let G = the event of getting two marbles of different colors.
Let H = the event of getting white on the first pick.

True or False: G and H mutually exclusive.

A. True

B. False

6. Suppose E and F are events such that $P(E)$ =0.1, $P(F)$ =0.1, and $P(E \cap F)$ =0.08

Find $P(E \cup F)$.

A. $P(E \cup F)$ =0.19

B. $P(E \cup F)$ =0.1

C. $P(E \cup F)$ =0.15

D. $P(E \cup F)$ =0.17

E. $P(E \cup F)$ =0.03

F. $P(E \cup F)$ =0.09

G. $P(E \cup F)$ =0.12

H. $P(E \cup F)$ =0.11

7. You roll a six-sided die.

Let A = the event of rolling an even number.
Let B = the event of rolling a prime number.
Let C = the event of rolling an perfect square.

True or False: A and C mutually exclusive.

A. False

B. True

8. A box is filled with several party favors. It contains 12 hats, 11 noisemakers, 11 finger traps, and 11 bags of confetti.

Find the probability of getting a fingertrap or a bag of confetti.

A. The probability of getting a fingertrap or a bag of confetti is $\frac{23}{45}$.

B. The probability of getting a fingertrap or a bag of confetti is $\frac{5}{9}$.

C. The probability of getting a fingertrap or a bag of confetti is $\frac{8}{15}$.

D. The probability of getting a fingertrap or a bag of confetti is $\frac{3}{5}$.

E. The probability of getting a fingertrap or a bag of confetti is $\frac{22}{45}$.

F. The probability of getting a fingertrap or a bag of confetti is $\frac{1}{3}$.

G. The probability of getting a fingertrap or a bag of confetti is $\frac{13}{45}$.

H. The probability of getting a fingertrap or a bag of confetti is $\frac{7}{15}$.