

Nature and Wildlife Statistics

Statistics & Probability · Answer Key · 20 Questions

1. In a standard group of 10 honeybees, if 3 are scouts and 7 are foragers, what is the probability of randomly selecting a scout?

- A) $\frac{3}{10}$**
- B) $\frac{7}{10}$
- C) $\frac{1}{10}$
- D) $\frac{3}{7}$

2. If a litter of 4 kittens contains 2 ginger and 2 black kittens, what is the ratio of ginger kittens to the total?

- A) 1:4
- B) 1:2**
- C) 2:1
- D) 4:2

3. Out of 5 flowering plants, 1 is a sunflower and 4 are daisies. What is the frequency of sunflowers?

- A) $\frac{4}{5}$
- B) $\frac{1}{4}$
- C) $\frac{1}{5}$**
- D) $\frac{5}{1}$

4. If a forest has 2 pine trees and 8 oak trees, what is the probability of picking an oak tree?

- A) 0.8**
- B) 0.2
- C) 0.5
- D) 0.1

5. In a flock of 6 birds, 3 are blue and 3 are red. What is the probability of picking a red bird?

- A) $\frac{1}{6}$
- B) $\frac{2}{3}$
- C) $\frac{1}{3}$
- D) $\frac{1}{2}$**

6. If a sea turtle lays 100 eggs and 90 hatch, what is the hatch rate as a percentage?

- A) 10%
- B) 50%
- C) 90%**
- D) 100%

7. If 7 out of 10 shark species in a small study are bottom-dwellers, what is the decimal representation of this statistic?

- A) 0.3
- B) 0.7**
- C) 0.07
- D) 0.77

8. A researcher counts 4 ladybugs with 7 spots and 6 ladybugs with 2 spots. What is the total number of ladybugs observed?

- A) 11
- B) 9
- C) 10**
- D) 13

9. If a rain gauge collects water over 7 days and it rains on 3 of those days, what is the fraction of rainy days?

- A) $\frac{3}{7}$**
- B) $\frac{4}{7}$
- C) $\frac{3}{4}$
- D) $\frac{7}{3}$

10. In a pond with 5 frogs, 2 are bullfrogs and 3 are tree frogs. What is the mode of this data set?

- A) Bullfrog
- B) Tree frog**
- C) Equal
- D) None

11. If a scientist tags 2 monarch butterflies out of a group of 8, what percentage of the group is tagged?

- A) 20%
- B) 25%**
- C) 40%
- D) 50%

12. A zoo has 3 monkeys, 2 lions, and 5 elephants. What is the probability of randomly picking an elephant?

- A) $\frac{1}{2}$
- B) $\frac{1}{5}$
- C) $\frac{3}{10}$
- D) $\frac{2}{5}$

13. If 4 out of 8 mushrooms in a patch are edible, what is the probability of picking an edible one?

- A) 0.25
- B) 0.4
- C) 0.5
- D) 0.8

14. Out of 10 stars visible in a clear patch of sky, 5 are blue and 5 are white. What is the range of this distribution?

- A) 0
- B) 5
- C) 10
- D) 1

15. If a wolf pack consists of 9 wolves, and 1 is an alpha, what is the fraction of non-alpha wolves?

- A) $\frac{1}{9}$
- B) $\frac{8}{9}$
- C) $\frac{9}{8}$
- D) $\frac{7}{9}$

16. In a basket of 10 apples, 4 are green and 6 are red. What is the ratio of red to green apples?

- A) 2:3
- B) 3:2
- C) 4:6
- D) 6:4

17. If a coral reef has 20 fish and 5 are clownfish, what is the percentage of clownfish?

- A) 5%
- B) 10%
- C) 20%
- D) 25%

18. A bird eats 3 seeds in the morning, 2 at noon, and 5 in the evening. What is the mean number of seeds eaten per time period?

A) 3

B) 4

C) 5

D) 2

19. If 1 out of 4 seasons is summer, what is the probability of randomly choosing summer?

A) 0.1

B) 0.25

C) 0.5

D) 0.75

20. A study tracks 10 polar bears; 6 are male and 4 are female. What is the probability of picking a female?

A) 0.4

B) 0.6

C) 0.2

D) 0.8