

Int 1**HW 9-1
Probability****Unit 9**

INSTRUCTIONS: For each of the following situations, write the probability as a **SIMPLIFIED fraction, a decimal, and a percent**. Do NOT round answers. Use a repeating bar when necessary.

There are 4 blue marbles, 5 red marbles, 1 green marble, and 2 black marbles in a bag. Suppose you select one marble at random. Find each probability.

1. P(black)

_____ = _____ = _____

2. P(green)

_____ = _____ = _____

3. P(red)

_____ = _____ = _____

4. P(not blue)

_____ = _____ = _____

5. P(red or green)

_____ = _____ = _____

6. P(blue or black)

_____ = _____ = _____

7. P(neither red nor black)

_____ = _____ = _____

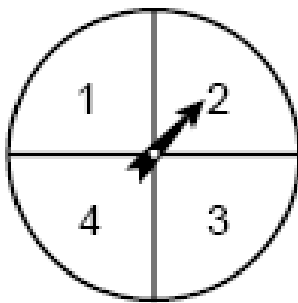
8. P(blue, red, or green)

_____ = _____ = _____

9. P(blue, red, green, or black)

_____ = _____ = _____

A spinner like the one at the right is used in a game. Determine the probability of spinning each outcome if the spinner is equally likely to land on each section.



10. P(a two)

_____ = _____ = _____

11. P(an odd number)

_____ = _____ = _____

12. P(a one or a four)

_____ = _____ = _____

13. P(the letter A)

_____ = _____ = _____

14. P(a number greater than 1)

_____ = _____ = _____

15. P(a prime number)

_____ = _____ = _____

16. P(not a three)

_____ = _____ = _____

INSTRUCTIONS: For each of the following situations, write the probability as a **SIMPLIFIED fraction, a decimal, and a percent**. Do NOT round answers. Use a repeating bar when necessary.

The spinner shown is spun once.

17. P(C)

_____ = _____ = _____

18. P(G)

_____ = _____ = _____

19. P(M or P)

_____ = _____ = _____

20. P(B, E, or A)

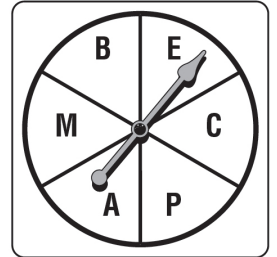
_____ = _____ = _____

21. P(not T)

_____ = _____ = _____

22. P(not M)

_____ = _____ = _____



Eight cards are marked 3, 4, 5, 6, 7, 8, 9, and 10 such that each card has exactly one of these numbers. A card is picked without looking. Find each probability.

23. P(9)

_____ = _____ = _____

24. P(3 or 4)

_____ = _____ = _____

25. P(greater than 5)

_____ = _____ = _____

26. P(less than 3)

_____ = _____ = _____

27. P(odd)

_____ = _____ = _____

28. P(4, 7, or 8)

_____ = _____ = _____

29. P(not 6)

_____ = _____ = _____

30. P(not 5 and not 10)

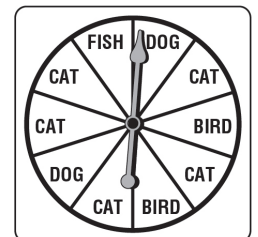
_____ = _____ = _____

The spinner is spun once. Write a sentence stating how likely it is for each event to happen. Justify your answer using math.

31. Fish

32. Cat

33. Bird, cat or fish



34. Of the water lilies in the pond, 43% are yellow. The other lilies are white. A frog randomly jumps onto a lily. Describe the complement of the frog landing on a yellow lily in a sentence, and find its probability.

A number cube is rolled 20 times and lands on 1 two times and on 5 four times. Find the experimental probability. Then compare the experimental probability to the theoretical probability.

35. Landing on a 5

Experimental Probability:

Theoretical Probability:

Compare:

36. Not landing on 1

Experimental Probability:

Theoretical Probability:

Compare:

The spinner at the right is spun 12 times. It lands on blue 1 time.

37. What is the experimental probability of landing on blue?

38. Are the experimental and theoretical probabilities close? Explain.

