

Name _____

Date _____ Pd. _____

Notes: Simple Probability

Certain	An event that will definitely happen. A certain event has a probability of 1.
Chance	Another word for probability
Compound Events	
Dependent Events	
Experimental Probability	
Fairness	A measure of the balance of all outcomes.
Impossible	An event with a probability of zero.
Independent Events	
Likelihood	The chance that something will occur.
Likely	An event with a probability much larger than 50%
Outcomes	One of the possible events in a probability situation.
Probability	
Sample Space	A list of all possible outcomes of an activity.
Theoretical Probability	
Unlikely	An event with a probability much smaller than 50%

Example 1 Mr. Babcock chooses 5 out of 25 students in his algebra class at random for a special project. What is the probability of being chosen?

Example 2 A bowl contains 3 pears, 4 bananas, and 2 apples. If you take a piece of fruit at random, what is the probability that it is *not* a banana?

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Exit Card: Simple Probability

Joe counted the number of people in the first 100 cars that passed through an intersection. The table below shows the results of his counting:

People in Car	Frequency
1	28
2	36
3	20
4	16

Based on the results in the table, what is the probability that the next car that passes through the intersection will have at least three people in it?

- A. $\frac{16}{100}$ B. $\frac{20}{100}$ C. $\frac{36}{100}$ D. $\frac{64}{100}$
-

One hundred tickets were sold in a drawing. Sally bought five of the 100 tickets. Three tickets are drawn, and Sally has not won a prize. What is the probability that she will win a prize when the fourth ticket is drawn?

- A. $\frac{5}{100}$ B. $\frac{5}{97}$ C. $\frac{5}{95}$ D. $\frac{5}{92}$

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Homework: Pages 99 – 101 (15, 17, 23, 28 – 30, 34, 35, 51, 54, 62)

One coin is randomly selected from a jar containing 70 nickels, 100 dimes, 80 quarters, and 50 1-dollar coins. Find each probability.

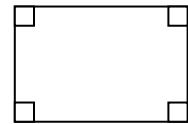
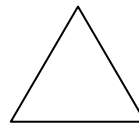
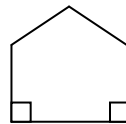
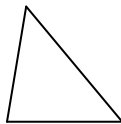
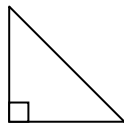
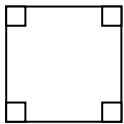
15. $P(\text{dime}) =$

17. $P(\text{quarter or nickel}) =$

Two dice are rolled, and their sum is recorded. Find the probability.

23. $P(\text{sum less than 8}) =$

One of the polygons is chosen at random. Find each probability.



28. $P(\text{triangle}) =$

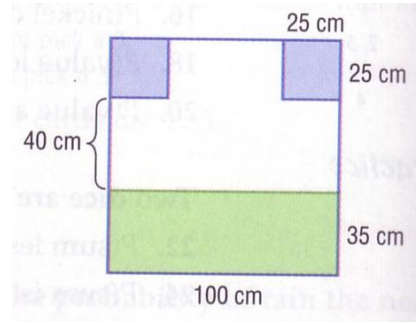
29. $P(\text{pentagon}) =$

30. $P(\text{not a triangle}) =$

34. If a person's birthday is in April, what is the probability that it is the 29th?

35. If a person's birthday is in July, what is the probability that it is after the 16th?

A game piece is randomly placed on the board shown at the right by blindfolded players.



51. What is the probability that a game piece is placed on a shaded region?

Stem	Leaf
3	0 0 0 0 1 1 1 1 1 1 1 2 2 2 3 3 4 4 4 5 5 5 6 6 6 7 7 8 8 9
4	0 1 1 1 1 2 2 3 3 3 4 4 7 7 9
5	0 <i>3 0 = 30</i>

54. What is the probability that one of these players picked at random hit more than 35 home runs?

62. What is the probability that a number chosen at random from the domain $\{-6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8\}$ will satisfy the inequality $3x + 2 \leq 17$?

A 20%

B 27%

C 73%

D 80%