


# CUT & PASTE Puzzle

## Simple Probability Puzzle

Directions: Using the situation described in the center, find the probability of the event described in the center. Give all answers as fractions in simplest form. Write your answers on the bottom and right edge of each square. Cut the squares apart and arrange them so the edges match the corresponding answers. Paste the squares on the template in the correct order.

**A**  $\frac{2}{7}$   
The spinner below is spun once. Find each probability.



$\frac{1}{3}$   $\frac{11}{12}$   $P(\text{shaded})$

**B**  $\frac{1}{6}$   
A bag contains 4 red, 6 purple, 9 blue, 3 green, and 2 yellow marbles. If a marble is pulled from the bag at random, find each probability.

$\frac{1}{26}$   $P(\text{red or purple})$


**C**  $\frac{5}{8}$   
Ava is trying out for the lead in the school musical along with 15 other students. Each student is randomly assigned a number that gives the order in which they will try out. Find the probability that Ava will be assigned the following numbers.

$\frac{11}{12}$   $P(7)$

**D**  $\frac{1}{3}$   
A card is chosen at random from a standard deck. Find each probability.

$\frac{1}{2}$   $P(\text{yellow})$

**E**  $\frac{5}{9}$   
Max is playing darts. In his last 20 throws, he hit the 10-point region 12 times, the 25-point region 6 times, and the 50-point region 2 times. Based on this, find the probability of his next throw.



$\frac{13}{14}$   $P(\text{less than 10})$

$\frac{1}{2}$   $P(\text{greater than 10})$

$\frac{5}{12}$   $P(\text{not 50 points})$

# Simple PROBABILITY

Created by: ALL THINGS ALGEBRA®

# Simple Probability CUT & PASTE PUZZLE!

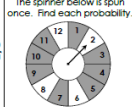


**Objective:** Students will practice finding the theoretical probability of a single event with this cut and paste puzzle. Problems range in difficulty. All answers are given as fractions in simplest form.

**Directions:**

- 1) Copy enough puzzles and blank templates for each student. I typically put the problems on white paper and the template in color. This is optional and only makes it pop!
- 2) A scenario is described in the middle of each square. Students are directed to find the probability of the events along the bottom and right edge of each square, based on the scenario in the middle. They can show their work on a separate sheet of paper if needed. The squares are lettered to make it easier for students to organize their work. As they do this, they should be recording their answers on the squares.
- 3) After finding each probability, they cut out the squares and begin arranging them so the edges meet. If they need some help with this, remind them that the box letters must face up. For even more help, I sometimes tell them which box goes in the upper left corner to get them started.
- 4) Once they have the squares arranged, they can paste them down on the template. I have my students staple their work to their puzzle and I collect as a classwork grade. Using the box letters makes it very easy to grade!

### Simple Probability Puzzle

Directions: Using the situation described in the center, find the probability of the events along the bottom and right edge of each square. Give all answers as fractions in simplest form. Record your answers on each square, then, cut the squares apart and arrange them so the edges match with corresponding answers. Paste the squares on the template in the correct order.

<p><b>A</b> <span style="float: right;"><math>\frac{2}{7}</math></span></p> <p>The spinner below is spun once. Find each probability.</p>  <p style="text-align: right;"><math>P(\text{shaded})</math></p> <p style="text-align: left;"><math>P(\text{less than } 10)</math></p>	<p><b>B</b> <span style="float: right;"><math>\frac{1}{6}</math></span></p> <p>A bag contains 4 red, 6 purple, 9 blue, 3 green, and 2 yellow marbles. If a marble is pulled from the bag at random, find each probability.</p> <p style="text-align: right;"><math>P(\text{red or purple})</math></p> <p style="text-align: left;"><math>P(\text{yellow})</math></p>	<p><b>C</b> <span style="float: right;"><math>\frac{5}{8}</math></span></p> <p>Ava is trying out for the lead in the school musical along with 15 other students. Each student is randomly assigned a number that gives the order in which they will try out. Find the probability that Ava will be assigned the following numbers.</p> <p style="text-align: right;"><math>P(7)</math></p> <p style="text-align: left;"><math>P(\text{greater than } 10)</math></p>
<p><b>D</b> <span style="float: right;"><math>\frac{13}{14}</math></span></p> <p>A letter from the word below is chosen at random. Find each probability.</p> <p style="text-align: center;"><b>MULTIPLICATION</b></p> <p style="text-align: right;"><math>P(\text{vowel})</math></p> <p style="text-align: left;"><math>P(\text{L or T})</math></p>	<p><b>E</b> <span style="float: right;"><math>\frac{1}{2}</math></span></p> <p>A card is chosen at random from a standard deck. Find each probability.</p>  <p style="text-align: right;"><math>P(\text{black ace})</math></p> <p style="text-align: left;"><math>P(\text{hearts or face card})</math></p>	<p><b>F</b> <span style="float: right;"><math>\frac{5}{9}</math></span></p> <p>Max is playing darts in his last 20 throws. He hit the 10-point region 12 times, the 25-point region 6 times, and the 50-point region 2 times. Based on this, find the probability of his next throw.</p>  <p style="text-align: right;"><math>P(\text{not } 50 \text{ points})</math></p> <p style="text-align: left;"><math>P(10 \text{ points})</math></p>
<p><b>G</b> <span style="float: right;"><math>\frac{2}{5}</math></span></p> <p>A date in the month of June is chosen at random. Find each probability.</p> <p style="text-align: right;"><math>P(\text{after the } 16^{\text{th}})</math></p> <p style="text-align: left;"><math>P(\text{odd and multiple of } 3)</math></p>	<p><b>H</b> <span style="float: right;"><math>\frac{4}{5}</math></span></p> <p>In his Olympic career, Michael Phelps has won 23 gold medals, 3 silver medals, and 2 bronze medals. If he chooses a medal at random, find each probability.</p> <p style="text-align: right;"><math>P(\text{bronze})</math></p> <p style="text-align: left;"><math>P(\text{gold or silver})</math></p>	<p><b>I</b> <span style="float: right;"><math>\frac{11}{26}</math></span></p> <p>Sally is reading a 50-page book. If she opens the book to a page at random, find each probability.</p> <p style="text-align: right;"><math>P(\text{prime number})</math></p> <p style="text-align: left;"><math>P(\text{greater than } 30)</math></p>
<p><b>J</b> <span style="float: right;"><math>\frac{3}{16}</math></span></p> <p>A bucket contains one of each of the following shapes: triangle, square, rectangle, rhombus, parallelogram, trapezoid, pentagon, hexagon, and octagon. If one is chosen at random, find each probability.</p> <p style="text-align: right;"><math>P(\text{at least } 5 \text{ sides})</math></p> <p style="text-align: left;"><math>P(\text{quadrilateral})</math></p>	<p><b>K</b> <span style="float: right;"><math>\frac{3}{4}</math></span></p> <p>There are 8 apples, 4 oranges, 3 bananas, 6 plums, and 11 nectarines in a large basket. If one piece of fruit is chosen at random, find each probability.</p> <p style="text-align: right;"><math>P(\text{not an orange})</math></p> <p style="text-align: left;"><math>P(\text{apple or plum})</math></p>	<p><b>L</b> <span style="float: right;"><math>\frac{3}{8}</math></span></p> <p>There are nine 1¢, four 5¢, eight 10¢, five 25¢, twelve 34¢, and ten 49¢ stamps in a bag. If one is chosen at random, find each probability.</p> <p style="text-align: right;"><math>P(\text{at least } 21¢)</math></p> <p style="text-align: left;"><math>P(1¢)</math></p>

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Date: \_\_\_\_\_ Per: \_\_\_\_\_

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