

A single die is rolled twice.  
Find the probability of getting  
two numbers whose sum is  
greater than 10.

$$\frac{1}{12}$$



The biology faculty at a college consists of 4 professors, 12 associate professors, 13 assistant professors, and 6 instructors. If one faculty member is randomly selected, find the probability of choosing a professor or an instructor.

$$\frac{2}{7}$$

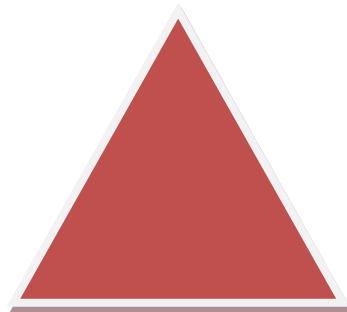


You are randomly dealt one card from a 52-card deck. Find the probability that you are not dealt a 9 or a 10.

11

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13

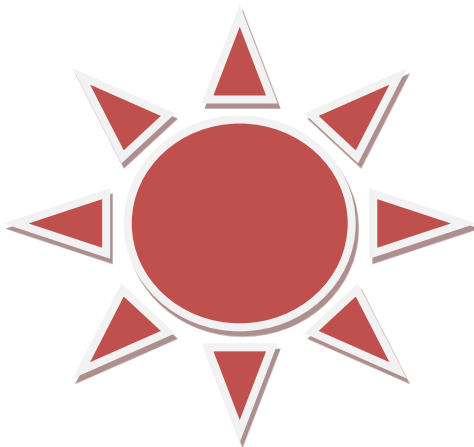


The physics department of a college has 7 male professors, 11 female professors, 16 male teaching assistants, and 8 female teaching assistants. If a person is selected at random from the group, find the probability that the selected person is a teaching assistant or a female.

5

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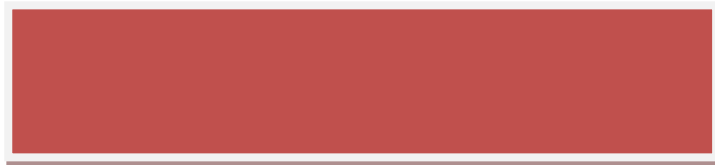
6





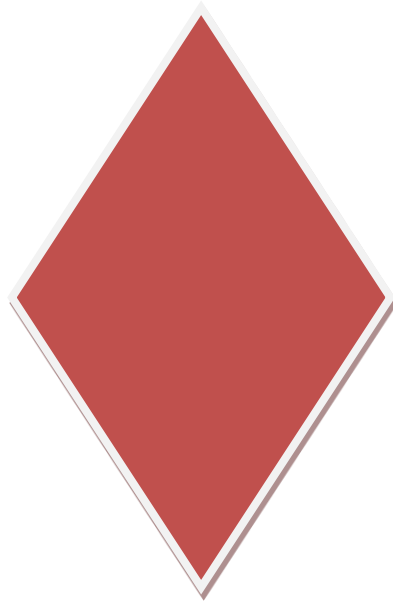
You are dealt one card from a standard 52-card deck. Then the card is replaced in the deck, the deck is shuffled, and you draw again. Find the probability of getting a face card the first time and a black card the second time.

$$\frac{3}{26}$$



How many different ways can  
letters in the word *MIRACLE*  
be arranged?

5,040

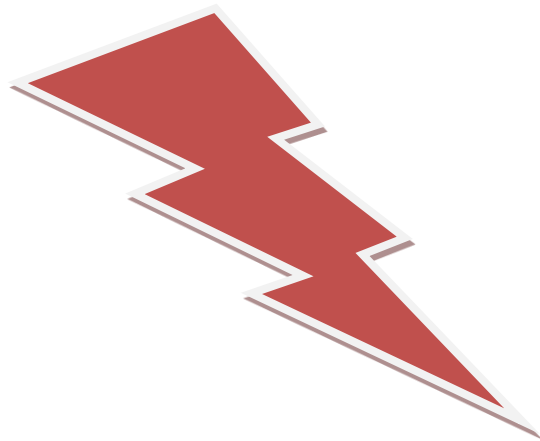


Calculate the following probability of selecting a diamond or a face card from a standard 52-card deck

11

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26



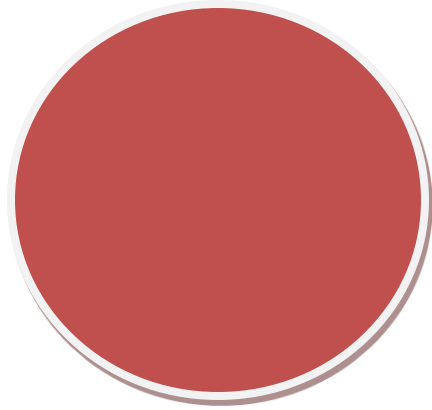
Coins: Write out the tree diagram showing the results of tossing a coin 3 times. Then, find the probability of having the coin land on tails at least twice.

**\*\*Be sure to show your tree diagram on your paper to receive credit! 😊 \*\***

1

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2





A cell phone store sells 5 models of phones (Mach, Spectrum, Optimus, Intuition, Freedom). Each phone can be ordered in 3 different colors (Black, Red, White)

What is the probability of choosing a Optimus in red at random?

**\*Hint → List your sample space\***

$$\frac{1}{15}$$



A playlist on your iPod has 9 songs. In how many different orders can the nine songs be played?

362,880



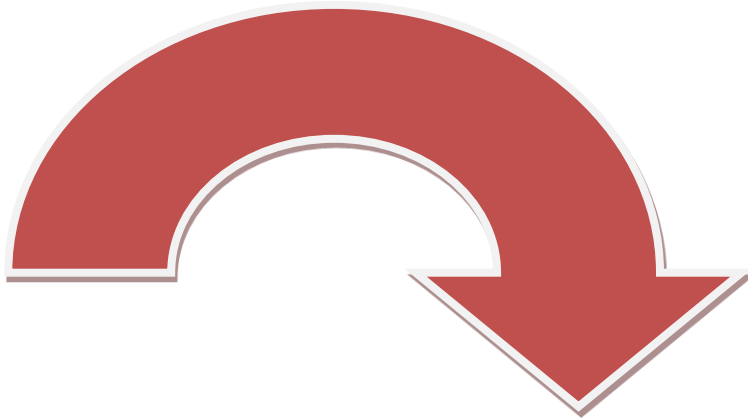
Degree	Male	Female
Associate's	224	387
Bachelor's	547	776
Advanced	245	322

Find the probability that the recipient is female given the degree is advanced.

46



81



Make a tree diagram for the survey results. Of all survey respondents 27% are male. Of all male respondents 31% are left handed. Of female respondents 85% are right handed. Find the probability that a respondent is both female and left handed.

\*\*Be sure to show your tree diagram on your paper to receive credit! 😊 \*\*

0.1095





In Florida, 62% of all teenagers own a cell phone and 23% of all teenagers own a cell phone and an ipod. What is the probability that a teenager owns an ipod given that the teenager owns a cell phone?

37%



In a school of 320 students, 85 students are in the band, 200 students are on sports teams, and 60 students participate in both activities.

Find  $P(\text{Band} \cup \text{Sports})$ .

45



64

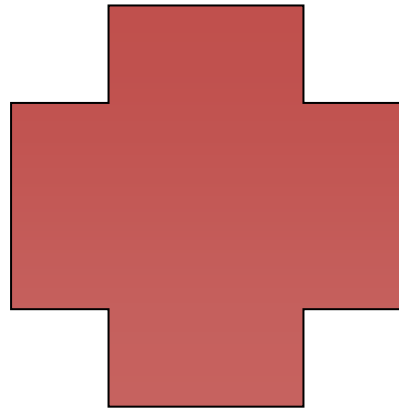


Martha has 4 pairs of sneakers and 5 pairs of sandals. Without looking, she pulls a sandal from the closet. What is the probability that the next shoe she pulls out will also be a sandal?

9



17



Given the following information,  
find  $P(9^{\text{th}} \text{ grade} | \text{swimmer})$ .

	Swimmers	Runners
9 <sup>th</sup> Grade	4	16
10 <sup>th</sup> Grade	16	64

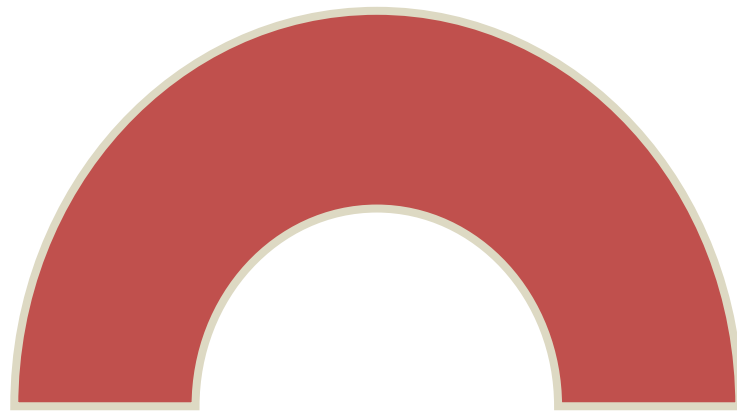
$$\frac{1}{5}$$





Miranda and Christy are best friends and neighbors. About 30% of the time, they eat at Miranda's house and her mother makes a non vegetarian meal 65% of the time. The rest of the time, they eat at Christy's house and her mother serves a vegetarian meal 55% of the time. If the girls ate a vegetarian meal, what is the probability that they ate at Miranda's house?

21.4%



The manager of a restaurant needs to choose 5 waiters, 3 cooks, and 1 shift manager for a shift. She has 9 waiters, 7 cooks, and 4 shift managers to choose from. In how many ways can she choose the employees for the shift?

17,640

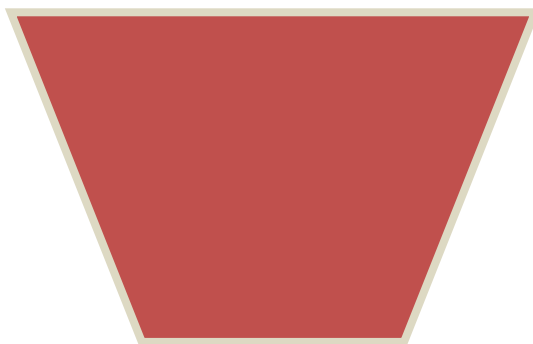


A box of markers contains 5 purple, 3 green, 4 red, and 7 yellow markers. You choose one marker at a time, with replacement. What is the probability that you choose 2 yellow and 1 purple marker?

735

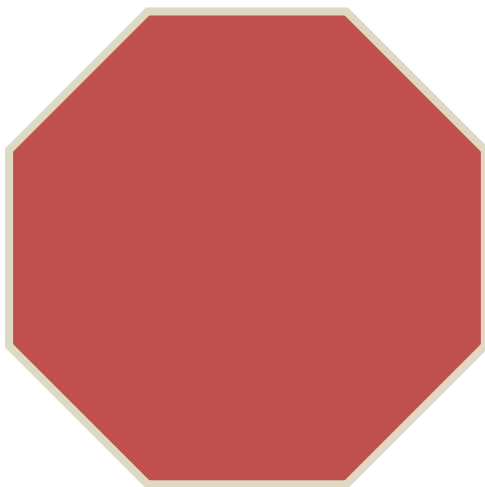


6859



There are 8 desserts on the menu at a restaurant and you will choose 3 to share with your friends at the table. In how many ways can you do this?

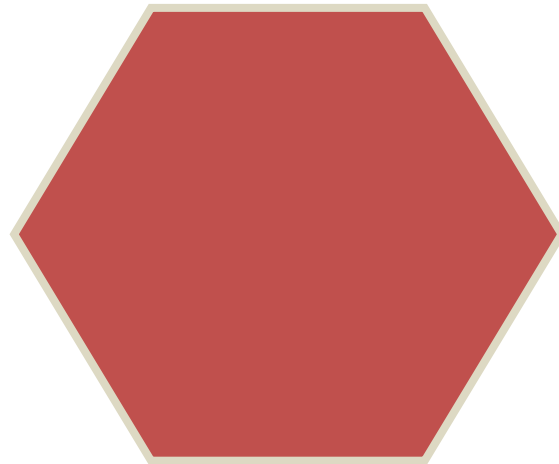
56





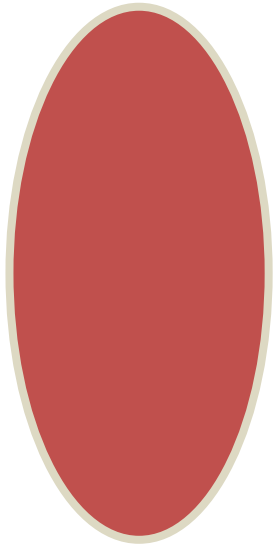
45% of the children in a school have a dog, 30% of those with no dog have a cat, and 40% of those with a dog have a cat. Of those with a dog, what percent of them have no cat?

60%



How many different ways can  
letters in the word  
*REARRANGED*  
be arranged?

151,200



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greater than 10.



