

Name _____

Pick a Project

Project 8A

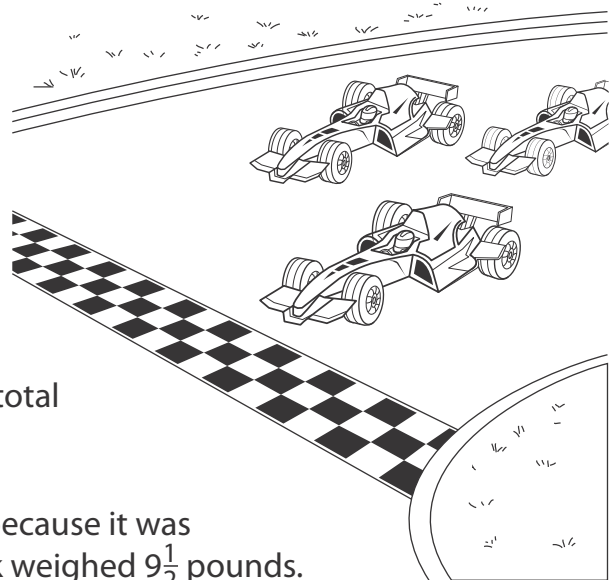
Indianapolis Motor Speedway

The Indianapolis Motor Speedway is the largest sporting facility in the world. It can hold up to 400,000 people! The speedway, located in Indiana, was built in 1909. It includes a racetrack that is exactly $2\frac{1}{2}$ miles (4 km) long.

The Indy 500 is probably the most well-known race held at the Speedway. During that event, race cars travel 200 laps around the track for a total distance of 500 miles.

The Speedway is also known as the Brickyard because it was paved in 1911 with $3\frac{1}{5}$ million bricks. Each brick weighed $9\frac{1}{2}$ pounds.

It has since been paved over with asphalt, except for a small strip near the finish line. Winners have a tradition of kissing the bricks to honor the history of the Speedway.

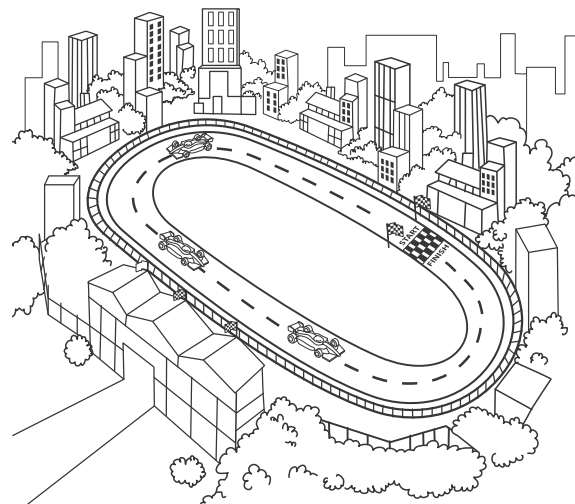


Your Project Create a Fraction Game

Many facts related to the Indianapolis Motor Speedway involve measurements that can be written as fractions or mixed numbers. Have an adult help you research some of these interesting facts.

Use your questions and answers to create a game. You can model your game after an existing game such as bingo or *Jeopardy*, or you can make up your own game.

Create a game card that lists the materials needed, the number of players, the rules, and the goal (or how to win). Then, test the game with your friends or family. Adjust the rules, add or delete questions, and fix incorrect answers as needed.



Name _____

Pick a Project

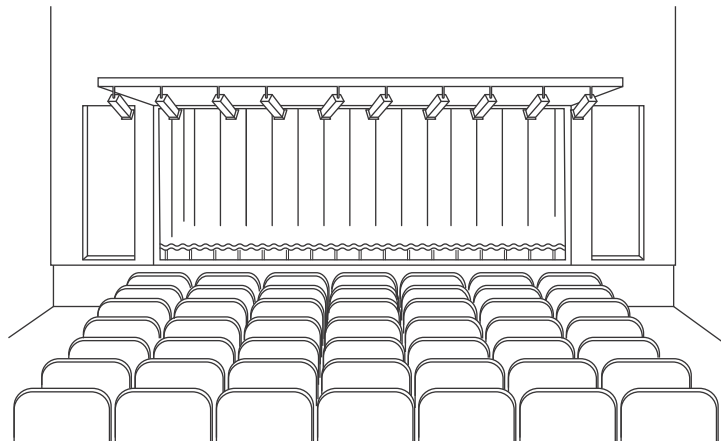
Project 8B

All the World's a Stage

Next time you see a live theater production, such as a play or musical, think about the structures and lighting on stage. Sure, there are actors performing on the stage. But how is the scenery created? It is done by a stage crew.

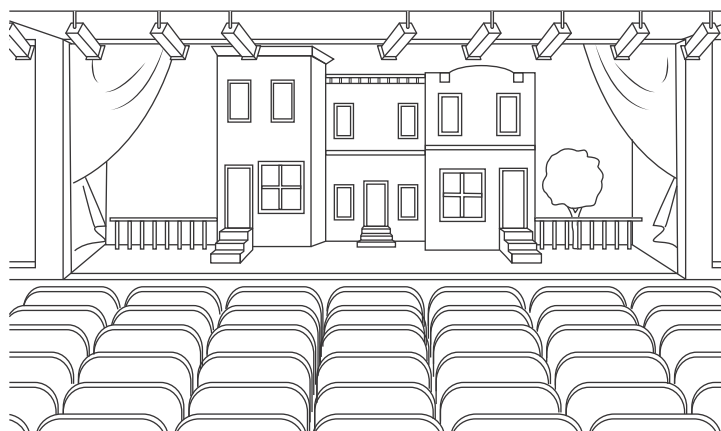
The stage crew are members of the production. These people are in charge of various technical aspects of the production.

Some of the stage crew builds the stage sets. Others are responsible for lighting. Sometimes the scenes may change and the lights turn dimmer, depending on the mood that needs to be conveyed. So while actors say their lines, the setting is important, too!



Your Project Build a Model

With a partner, build a set for a two-act play. You and your partner build two models, one for each act, before the full stage production begins. Decide what your play is about. What would the two sets be for each part? Do the scenes take place inside or out? Does the set need windows and doors? It's up to you.



First, design the model for Act 1 while your partner designs the model for Act 2. Label all measures for each model in increments of $\frac{1}{2}$ inch.

Next, give each other the designs. Then each of you converts all measurements into $\frac{1}{8}$ -inch measurements. Check each other's work. Now you can build the models!

Materials: rulers, paper, pencil, craft sticks for models, tape, glue

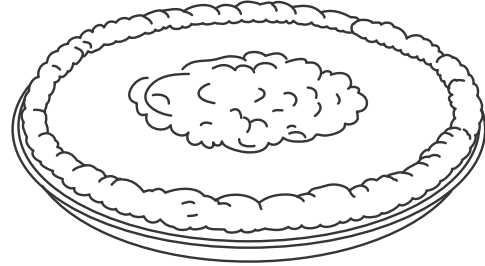
Name _____

Part of a Pie

Do you have a favorite type of pie?

Many people like pies that are made of fruit, chocolate, or other ingredients.

Pizzas are often called “pizza pies” because they are usually round in shape. Legends say that the first pizza was made in Italy for King Umberto 1 and Queen Margherita. It had tomatoes, mozzarella cheese, and basil. Today there is a type of pizza known as Pizza Margherita.



Pizza was brought to the United States by people from Italy. The first pizzeria, or a restaurant that sold pizza, opened in 1905 by a grocer in New York City.

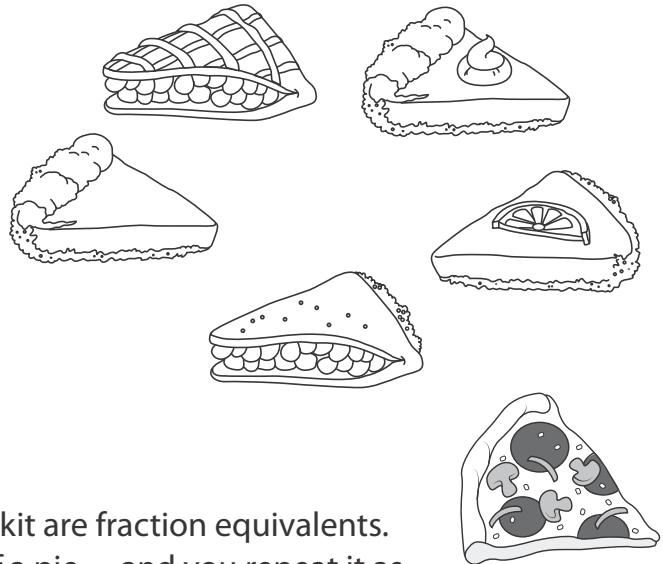
Your Project Write and Perform a Skit

The name of your skit is “Pie in the Sky.” You own a shop that makes pies. It can be any kind of pie: pizza, apple, pumpkin... anything you like.

Every pie you sell comes in different sizes. You choose. Maybe some are cut into 8 pieces, some 6 pieces. Maybe you have a huge pie that is cut into many pieces! Or maybe you put numbers in a hat and pick.

The only thing you have to write into your skit are fraction equivalents. Perhaps your customer asks for a fraction of a pie... and you repeat it as its fraction equivalent. Or you can involve the audience to guess a fraction equivalent of an order. You decide! The show must go on!

Materials: paper, pencil



Name _____

Pick a Project

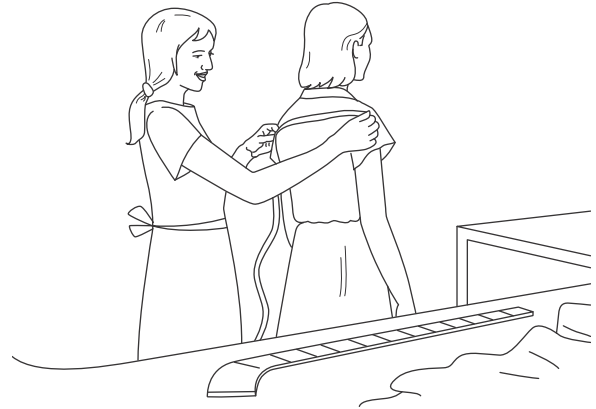
Project 8D

Tailor Made

A tailor is a person who makes fitted clothes such as shirts, suits, and pants to fit individual customers.

Maybe an older family member gives you a jacket you love. The only problem is that the sleeves are too long!

You can take it to a tailor, who will measure your arms, and then cut the fabric and sew it back up. The sleeves will be shortened so that it fits! Now, when you get older and grow out of the jacket, whom will you give it to?



Your Project Create a Game

With a partner, make up a game and all of its rules. The object of the game is to find equivalent fractions.

$$\frac{1}{3}$$

For example, one of you might pretend to have a job that deals with fractions, such as a tailor or a construction worker who cuts wood. One of you says only the fraction part of the measurement, and the other has to say the fraction equivalent and how you found it.

$$\frac{2}{6}$$

But that's just an example. You decide the rules and how to play. Tell how to keep score. How does someone win? Is there overtime or bonus points? Have fun!

$$\frac{4}{12}$$

Materials: paper, pencil