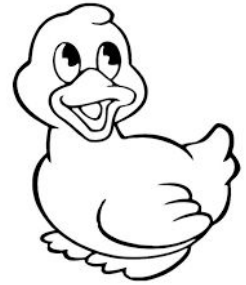


ACTIVITY SHEET - Statistics and Probability

The Spring Festival



Gina is planning a booth for the school's spring festival. She is deciding between Bean Bag Toss and Pick-a-Duck. Gina plans to conduct a survey by asking a sample of her fellow 5th graders which game they prefer.

- 1) Which is the best way to conduct her survey?
 - a) Interview every kid in her gym class
 - b) Randomly pick a number of kids from the 5th grade class list to interview
 - c) Choose every 10th kid in line to go home on the bus

Gina interviews 35 of her classmates. Of those 35, 14 favor bean bag toss and 21 favor Pick-a-Duck. There are 120 fifth graders in her grade.

- 2) Based on the results of Gina's survey, how many of the 120 fifth graders would you expect to choose pick-a-duck?

Gina decides to go with Pick-a-Duck. She buys 30 plastic ducks and colors a circle on the underside of each one. 10 ducks have green circles, 10 have blue, 5 have pink, 4 have purple, and 1 has silver. The ducks are then placed in a kiddie pool filled with water.

- 3) Kyle is hoping to pick the silver duck because the prize is 20 more carnival tickets. If he pulls one duck from the pool at random, what is $P(\text{silver})$?
- 4) Gina's little brother comes to play, and he wants to choose a green or blue duck so he can win a sucker. What is $P(\text{green or blue})$?
- 5) Lucy wants to pick a pink duck because that is her favorite color. She reaches in to grab a duck. What is $P(\text{pink})$?
- 6) Lucy's sister, Eva, doesn't like pink and wants any color other than pink. What is $P(\text{not pink})$?
- 7) Marco gives Gina two tickets so he can play twice in a row. He is hoping for two purple ducks so he can win two posters. Marco picks a duck, puts it back and lets Gina stir the ducks around, and then he randomly picks another duck. What is $P(\text{purple, purple})$?

ACTIVITY SHEET - Rational Number Operations

Orange Frost Drink



Solve the following problems. The answers will tell you how much of each ingredient you need and other useful information to help you make this version of an Orange Julius. The directions are listed below. Good luck!

Problem	Answer	Ingredient
$-\frac{1}{12} + \frac{5}{6}$		___ Cup(s) Milk
$(-1\frac{1}{2}) \times (-\frac{1}{2})$		___ Cup(s) Water
$6\frac{3}{4} \div 1\frac{1}{8}$		___ oz of Frozen Orange Juice Concentrate
$(-72) \div (-9)$		___ Ice Cubes
$\frac{3}{4} - \frac{1}{2}$		___ Cup(s) Sugar
$-8.5 + 20 - 10.5$		___ teaspoon(s) Vanilla

Problem	Answer	Information
2.4×12.5		___ sec in Blender
$15.6 \div 5.2$		___ servings per batch

Directions

- 1) Pour all ingredients into the blender in the order listed.
- 2) Place the cover on and blend until mixture is smooth (which is about the amount of time shown in the table).
- 3) Pour into cups and enjoy!

ACTIVITY SHEET - Expressions and Equations

Simplify the expressions and solve the equations in the box below. Then use the solutions to help decode the punchline to the joke. Find the answer to the problem in each box, locate the answer in the coded punchline, and write the letter from the box above it.

Did you hear about the mathematician who's afraid of negative numbers?

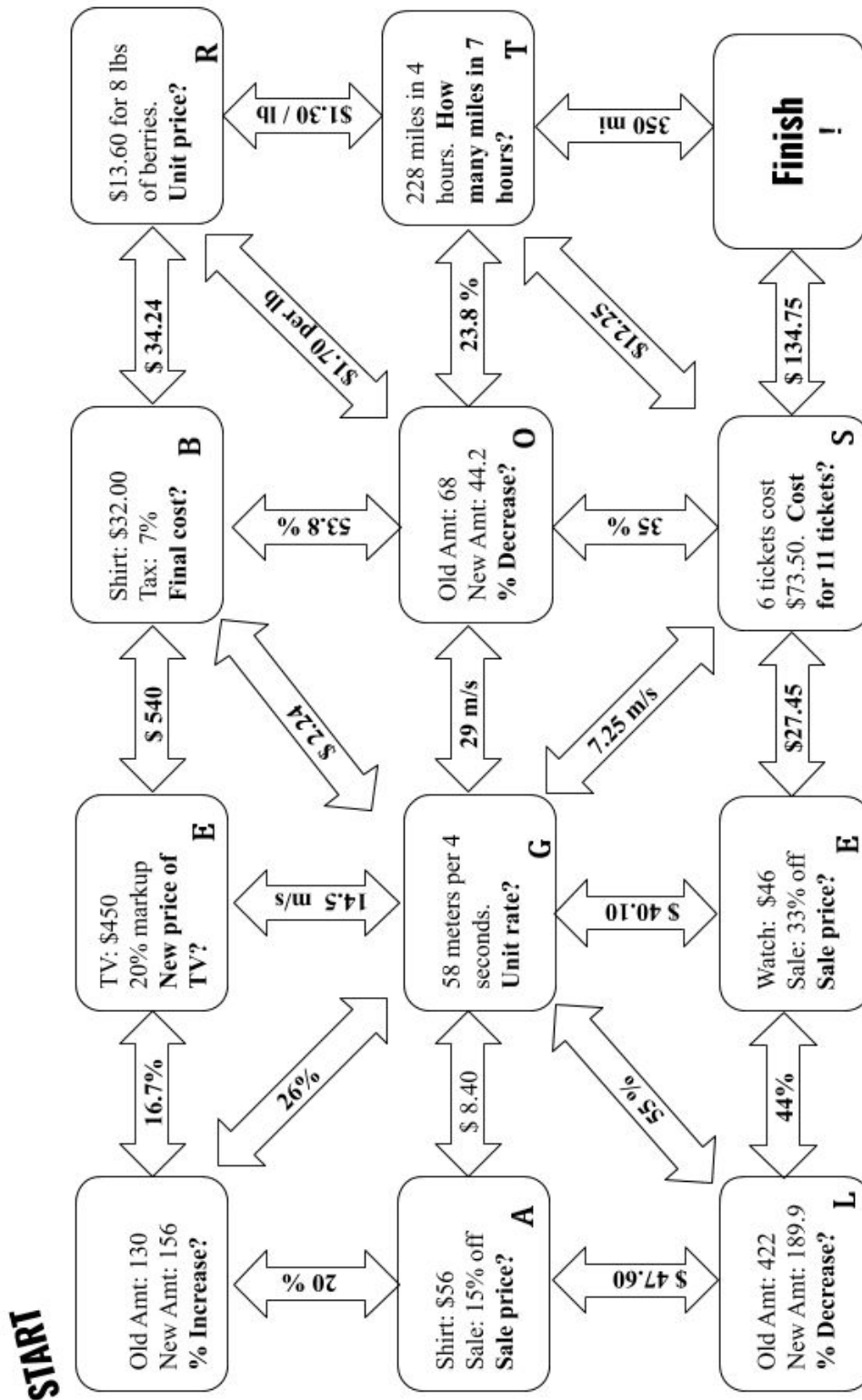
$\frac{6}{6} - \frac{-1}{4} + \frac{4}{4} - \frac{-3}{10} + \frac{10}{9} - \frac{1}{2} + \frac{8}{8} - \frac{10}{-5} + \frac{9}{9} - \frac{10}{6} + \frac{2}{2} - \frac{-5}{-5} + \frac{x+1}{x+1}$

$\frac{10}{10} - \frac{9}{9} + \frac{8}{8} - \frac{2n}{2n} + \frac{9}{9} - \frac{2}{2} + \frac{3x}{3x} + \frac{10}{10} - \frac{6}{6} - \frac{-1}{-1} - \frac{x}{-x}$

A	$2x + 9 = 25$	D	$3(x + 4) - 12$	E	$-4x - 10 = -6$
G	$5x - 3 - 4x + 4$	H	$\frac{x}{2} + 5 = 8$	I	$2(5x + 1) - 10x$
L	$2(3x + 5) = 34$	M	$9x - 10x$	N	$\frac{m}{-5} + 6 = 7$
O	$2(x - 4) + 3 = 13$	P	$8x - 6 = -2$	S	$2x - 1 + 3x + 4 = -12$
T	$\frac{x}{5} - 18 = -16$	V	$2(n - 15) + 30$		

ACTIVITY SHEET - Ratios and Proportions

Solve the maze by solving the problems in the squares and following the answers to the next problem. Each box has a letter in the corner. Write those letters in the blank spaces, in order, to read the punchline.

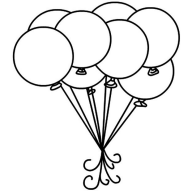


What do you call friends who both love math?

ACTIVITY SHEET - Geometry

Planning a Birthday Party

Mrs. Smith is planning a birthday party for her twin boys, Roberto and Martin, and still has to wrap a gift, pick up some popcorn, order pizza, and design a birthday banner. Answer the following questions, and support your answers with mathematical reasoning.

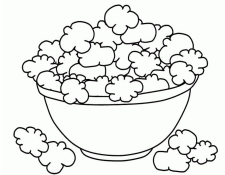


Is There Enough?

Mrs. Smith has one more gift to wrap, but only has 475 square inches of wrapping paper left. Their shared gift, the latest video game console, is 14 inches long, 8 inches wide, 4 inches high. Is there enough paper to cover the gift?

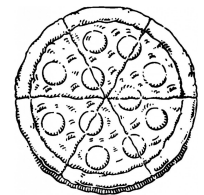
Which choice is better?

At the grocery store, the caramel popcorn her boys like comes in two sized boxes. The small box measures 7 in long, 3 in wide, and 9.5 in tall. The larger box measures 8.5 inch long, 3.5 in wide, and 12 in tall. The small box is half the price as the larger box. Assuming both boxes are full to the top with popcorn, is the better deal two small boxes or one large box?



Which is the better deal?

Next Mrs. Smith goes online to order pizza. For \$20 she can either order 3 medium pizzas or 2 large pizzas. A medium pizza has a diameter of 11 inches and a large has a diameter of 14 inches. Based on area, which is the better deal?



How big is the banner?

Mrs. Smith designed a banner on paper that measured 8 in by 5 in and brought it in to a party to be printed. She requested a scale ratio of $\frac{9}{2}$ inches between her drawing and the finished banner. In inches, what was the length and height of the printed banner?

What age are the boys turning?

The man at the party store asked Mrs. Smith how old her boys were turning. She replied, "I'm 38 and on their birthday, double the sum of their ages will be my mathematical complement." How old are the boys turning?

