

PROBLEM-OF-THE-DAY: ALGEBRA 1
WEEK: August 27 to August 31 **DAY:** Friday

RISD Objective: Given a set of circumstances, students will calculate the probability of an event.

PROBLEM #10

Freshmen at Alien High School were asked which of the following was their favorite dessert place: Caliche's, Dairy Queen, Baskin Robbins, or KaleidoScoops. The results are in the following table:

Favorite Dessert Place

	Boys	Girls
<i>Caliche's</i>	35	29
<i>Dairy Queen</i>	21	18
<i>Baskin Robbins</i>	23	22
<i>Kaleidoscoops</i>	12	20

If one freshman is selected at random, what is the probability that it is a student whose favorite ice cream shop is Baskin Robbins? Explain your work.

MODEL SOLUTION #10

To find probability, you take the number of favorable outcomes and divide by total number of outcomes. First, I need to find the total number of students. First, I begin by adding: $35 + 21 + 23 + 12 + 29 + 18 + 22 + 20 = 180$. Next, I need to find the number of students who prefer Baskin Robbins, so I add: $23 + 22 = 45$. Therefore, the number of students who prefer Baskin Robbins is $\frac{45}{180}$, which reduces to $\frac{1}{4}$.