

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

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

PROBLEM #6

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>	42	58
<i>Dairy Queen</i>	20	18
<i>Baskin Robbins</i>	23	46
<i>Kaleidoscoops</i>	20	18

If only the girls were considered, and one girl is chosen at random, what is the probability she will prefer Dairy Queen? Explain your work.

MODEL SOLUTION #6

To find probability, you take the number of favorable outcomes and divide by total number of outcomes. Since the problem just involves girls, we must first find out the total number of girls. When I add the girls together, $58 + 18 + 46 + 18$, I get 140. Since the number of girls that prefer Dairy Queen is 18, my probability fraction is $\frac{18}{140}$. This reduces to $\frac{9}{70}$.