

# MATHCOUNTS<sup>®</sup> Problem of the Week Archive

## Thanksgiving – November 19, 2012

### Problems

Mrs. Hillestad has planned a dinner for 15 people this Thanksgiving. She bought 22.5 lbs of turkey, plus potatoes, cranberry salad, rolls and all of the traditional holiday food. Unfortunately, her daughter forgot to tell her that she was bringing three of her friends. If Mrs. Hillestad wants to feed each person the same amount of turkey that she had originally planned, how much additional turkey must she purchase to accommodate these additional guests? Express your answer as a decimal to the nearest tenth.

Mrs. Hillestad realizes that she doesn't have the time to go to the store AND make the extra turkey. So, she decides not to purchase additional turkey. Since the 22.5 lbs of turkey that Mrs. Hillestad already purchased must now be equally divided among 18 people, by what percent is each person's intended serving of turkey reduced?

At dinner time the eight adults sit at a large round table, and the ten kids sit at the "kiddie" table. Mr. And Mrs. Hillestad will sit next to each other in designated seats, as shown, but the rest of the adults can be seated randomly around the table. How many seating arrangements are possible?

