



Problem of the Week

Problem D

Lunchtime

Herman provides ketchup, relish, and mustard for the customers at his hot dog stand. During the lunch rush one day, he recorded how many customers had each of these three condiments. He observed the following:

- The total number of customers was 125, and each ordered a single hot dog.
- 82 customers had ketchup, 47 had relish, and 80 had mustard.
- 32 customers had mustard and ketchup, but not relish.
- 5 customers had mustard and relish, but not ketchup.
- The number of customers who had all three of the condiments was double the number of customers who had none of the condiments.
- The number of customers who had exactly two of the condiments was double the number of customers who had all three of the condiments.

How many customers had ketchup, relish, and mustard on their hot dog?

