



## Problem of the Week

### Problem B

#### Friendly Towers

Friendly Towers is a high-rise apartment building. Dieter and three of his friends, Sanjay, Bethany, and Ivanka live on different floors of Friendly Towers.

- Dieter lives on the 9<sup>th</sup> floor.
- Friendly Towers has five times as many floors as Dieter's floor number.
- Bethany lives on the third floor below the top floor.
- Ivanka lives two floors above Sanjay, and Sanjay lives 5 floors below Bethany.
- On the floor which is  $\frac{8}{9}$  ths of the way to the top of the building, you will find a pool used by residents of the building.

Which floor do each of Sanjay, Bethany, and Ivanka live on, and on which floor is the pool located?

