



## Problem of the Week

### Problem B

#### Flowers for Sarah

Sarah has constructed 8 new garden beds in a sunny location and is looking to plant a flower garden. Seed packets cost \$2.69 per flower variety, and she must pay a \$9.00 flat rate shipping fee for her order. She would like to plant quite a few different varieties, but not spend more than \$53.00.

- Write an inequality which states Sarah's problem mathematically, using the given costs, the number of varieties she buys, and her available funds.
- What are all possibilities for the number of seed packets Sarah can purchase?
- If Sarah purchases the maximum number of seed packets that she can, and plants the same number of seed packets in each garden bed, then how many packets of seeds does she plant in each garden bed?
- In the end, Sarah buys as many seed packets as she can, purchasing in total four varieties: zinnias, salvia, daisies, and cosmos. She purchases three times as many packets of zinnias as salvia, and equal numbers of packets of daisies and cosmos. If she buys two seed packets of salvia, how many did she buy of each of the other three flower types?

