

1. Three interior angles of a octagon have measures 64, 41 and 40. If the measures of the remaining angles are equal, what is the measure, in degrees, of one of the remaining angles?

2. Ava and Madison are taking one candy each. There are 9 Snickers and 12 Milky Ways in a bag. If Ava goes first and they choose randomly, what is the probability that they'll both get a Snickers? Express your answer as a common fraction.

3. A cell colony begins with 9 cells. After every 12 hours, each cell divides into 2 cells. How many cells are there after 29 days? Express your answer to 3 digit accuracy in scientific notation.

4. Madison has 7 pairs of pants, 7 skirts, 11 pairs of shoes and 12 blouses. The blouses, pants, pairs of shoes and skirts are distinct. Ignoring any attempt at taste, if she must wear either a skirt or pants, shoes (that match!) and a blouse, how many different outfits can Madison create?

5. A train has 10 seats of which 3 are broken. The conductor needs to fill out a form that identifies the broken seats.

If she randomly identifies the 3 broken seats, what is the probability that she identified all the correct seats? Express your answer in scientific notation to 3 digit accuracy.