

Genetics with a Smile - Wrapping It Up 😊

(11) Why did you only need to flip the male parent coin to determine the sex of your smiley face?

(12) How would the smiley faces change if one of the parents were homozygous dominant for all the traits while the other was heterozygous?

(13) How would the smiley faces change if one of the parents were recessive for all the traits while the other was heterozygous?

(14) Uncle Smiley, who is heterozygous for a yellow face, married a woman with a green face. Both of them have always wanted a large family! If they were to have 12 children, what is the probability that the children would have yellow faces? How many would have green faces? Create a Punnett square to help you find your answers.

(15) Grandma and Grandpa Smiley are heterozygous for the star eye shape. If one of their heterozygous children married a girl with blast-type eyes, what percentage of their grandchildren should have starry eyes? What percent would have blast-type eyes? Create a Punnett square to help you find your answers.

(16) Baby Smiley has curly hair, but neither of her parents do! Is this possible? Create a Punnett square to help you find your answer.

(17) Aunt Smiley has the cutest pointed ears and would love to have children with pointed ears! What type of ears would her husband need to have in order for her to get her wish? Give the genotype and phenotype as part of your answer.