

TWO INDEPENDENT GENES FOR SUPER-STRENGTH #2

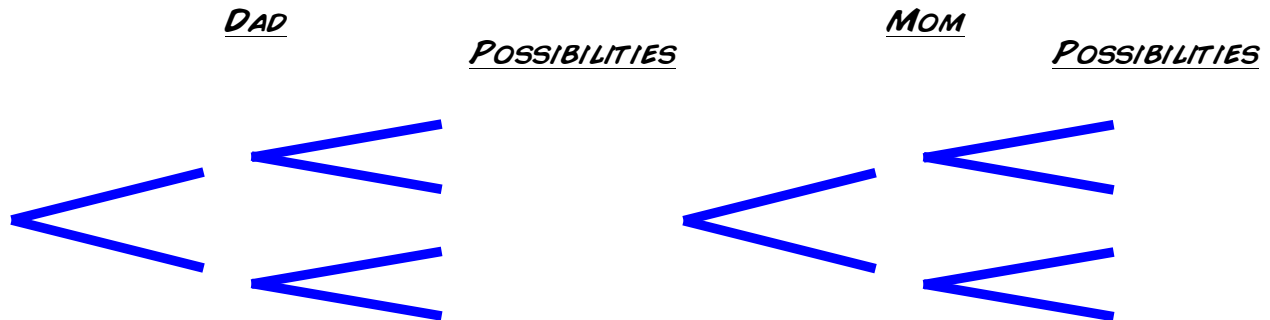


In the story, we show how a Punnett square can be used to calculate the likelihood that a super-strong person like Wonderguy could be born from two parents, each with a recessive strength trait. With two independent genes to be considered, how does the Punnett square change?

Suppose the dad carries the recessive trait in the first gene, $HhTT$,

and the mom carries the recessive trait in the second gene, $HHTt$.

STEP 1: Use a tree diagram to see what different combinations of traits are possible from each parent.



STEP 2: Put the possible combinations of traits down both sides of your Punnett square, and fill in the middle for the results.

The probability that their offspring has super-strength is _____.

SUPER-TRICKY! Suppose that **THREE** genes are needed to have super-strength, and both parents carry the recessive trait in each of the three genes. What is the probability of their offspring having super-strength?