Genetics

Big Nose Punnett Square

Make a Punnett square for the cross below, and answer the questions. You can use Chapter 6, Section 2 of your book to help you. Remember:

- **genotype** - what the genes say with their alleles
- **phenotype** - what you see when looking at the organism
- **alleles** - variations of a gene (dominant with a CAPITAL, recessive with a lower case)

Each box of the Punnett square will have two letters in it.

Count the number of boxes that have the alleles you are looking for.

As there are only four boxes, your percents can only be: 0%, 25%, 50%, 75%, or 100%.

Assume a big nose is a dominant trait (N) over a small nose (n). Make a Punnett square for the cross Nn x Nn.

What are the genotypes of the parents? __________ and __________

What are the phenotypes of the parents? Nn: ___________________ and Nn: ___________________

List all of the possible genotypes of the offspring of this cross: ______ , ______ , ______

What is the % chance that their children will have a big nose? __________

What is the % chance that their children will carry an allele with the recessive trait n? __________

Name: ____________________

Period: ____________________

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