

Name: _____ Block: _____ Date: _____

PUNNETT SQUARE PRACTICE #2

Complete the Punnett Squares for rolling or non-rolling tongue (R, r)

1.

| | | | | |
|------------------|-------------------------|--|--|------------------|
| | | <u> </u> R <u> </u> | <u> </u> R <u> </u> | Mother's alleles |
| Father's alleles | r <u> </u> | | | |
| | r <u> </u> | | | |

What is the probability that the child will be able to roll their tongue? _____

2.

| | | | | |
|-------------------------|--|--|--|------------------|
| | | <u> </u> R <u> </u> | <u> </u> R <u> </u> | Mother's alleles |
| R <u> </u> | | | | |
| r <u> </u> | | | | |

What is the probability that the child will be able to roll their tongue? _____

3.

| | | | | |
|-------------------------|--|--|--|------------------|
| | | <u> </u> R <u> </u> | <u> </u> r <u> </u> | Mother's alleles |
| R <u> </u> | | | | |
| r <u> </u> | | | | |

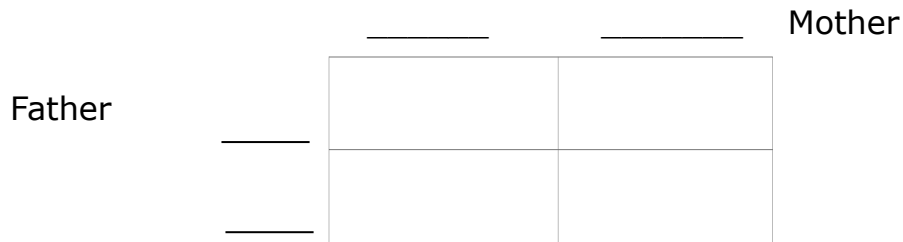
What is the probability that the child will be able to roll their tongue? _____

4. Cleft chins are a dominant trait. Fill in the Punnett Square showing the possible genetic outcomes for the child of a father who has a cleft chin (C C) and a mother that has a smooth chin (c c):



What is the probability that the child will have a cleft chin? _____

5. Show how it is possible for a father who has a cleft chin and a mother who has a smooth chin to have a child with a smooth chin:



What is the probability that the child will have a smooth chin? _____

6. Is it possible for a father who has a smooth chin and a mother who has a smooth chin to have a child with a cleft chin? Explain. You can draw a Punnett square to help you in your explanation.