

Name: _____

Hour: _____

Punnett Square Practice Problems

Answer the following questions, be sure to *SHOW THE PUNNETT SQUARE FOR EVERY PROBLEM* and answer the questions. No square, no credit.

1. Knighty McKnight met his future wife Shieldy Shielder at Prom. Knighty is heterozygous for his pointy nose, while Shieldy is a square nose. Create a punnett square to show the possibilities that would result if they have children.

What are the chances of a child with a pointy nose?

What are the chances of a child with a square nose?

2. Cooper met Kiki at the dog park. Both of them are heterozygous for their curly ears, which is dominant over short ear hair. Create a punnett square to show the possibilities that would result if they had puppies.

List the possible genotypes from this cross:

What percent chance is there of a puppy with curly ears?

What percent chance is there of a puppy with short hair ears?

3. Cardi B is currently pregnant. She has Over-The-Topitis which is a recessive disease. The baby's father is homozygous and does not have the disease. What are the chances their child will not have this disease?

Chance their child doesn't have it?

4. Stephen Curry is homozygous dominant for Free-throw-itis, his wife however is recessive and doesn't have the trait at all. What is the likelihood that their children will have this dominant trait?

Chance their child will have the dominant trait?

5. 2 Chainz and Ms. P\$ fall in love and get married. 2 Chainz, who raps-a-lot, is homozygous recessive for raps-a-lot disease and Ms. P\$ is a heterozygous carrier for the disease. What is the probability of them having a child who suffers from raps-a-lot?

Probability their child has it?

6. Daryl has Sleeveitis, a rare recessive disease which causes him to get irritated if his shirts ever have sleeves. Maggie loves wearing sleeves and knows she is homozygous. If they reproduced, what is the likelihood that their children would be comfortable wearing sleeves while running away from zombies (walkers)?

List the possible genotypes from this cross:

Chance their child will wear sleeves comfortably?

7. In Jurassic World a new dinosaur called the Indominus Rex was created. For this species having the ability to camouflage themselves to their surroundings is a dominant trait over not being able to camouflage themselves, what is the likelihood that the offspring of two heterozygous dinosaurs will inherit this unique trait from their parents?

List the possible genotypes from this cross:

Percent chance their offspring will be camouflaged?

8. Buckshot and his bride, Bobbie-gene, are thinking about having children. Buckshot suffers from a recessive genetic disease called Yooper Hooper (hh) causing him to enjoy living in the UP. Bobbie-gene had a brother who loved the UP, so she figures that she is a carrier (heterozygous). Is there a possibility that they can have a child with the disease?

Possibility their offspring has the disease?

9. Beyonce and Jay-Z visit a genetic counselor to see if their child will have crazy in love syndrome. It is a dominant disorder and Beyonce is homozygous for it. Jay-Z does not carry the allele for it at all. What is the possibility that their child will have crazy in love syndrome?

Possibility their offspring has the syndrome?

Possibility their offspring will be totally normal?

10. Taylor Swift suffers from a recessive disorder called Shake-it-off Syndrome. This syndrome makes people dance uncontrollably whenever they hear music. If her future husband is a carrier of this disorder, what percent chance will their child have Shake-it-off Syndrome? (BTW I hear Shake-it-off Syndrome causes Bad Blood).

Percent chance their offspring will have it?