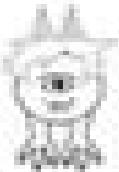


Zork Genetics



| Characteristic | Homozygous Genes | Heterozygous Genes |
|----------------|------------------|--------------------|
| Dark Fur | DD, dd | Dd, Dd |
| Long Hair | LL, ll | Ll, Ll |
| Large Ears | EE, ee | Ee, Ee |
| Pointy Nose | PP, pp | Pp, Pp |

USE YOUR KNOWLEDGE OF GENOTYPES TO COMPLETE THIS WORKSHEET.

1. Use the information from Zork's Party Pictures to determine the genotype(s) for each trait.

a) FF _____ b) ff _____

- c) Use the information in the chart to write the genotype(s) for each individual.

d) Chubby type _____ e) Thin Furry _____
f) Short _____ g) Pointy nose _____

- h) Determine the genotype(s) by matching the information in the chart.

i) Heterozygous curly tail _____ j) Homozygous curly tail _____
k) Pointy nose long _____ l) Pointy tail _____

- m) A not dark-haired George must婚配 with a not short-haired Morgan. Use your knowledge of genotypes to answer the questions below.

- n) If Morgan's father is a heterozygous tall dark and her mother is a short dark, what is Morgan's genotype? Complete the Punnett square to show the possible genotypes that would result to help you determine Morgan's genotype.

What is Morgan's genotype? _____

| | |
|--|--|
| | |
| | |

- o) George is heterozygous for the fur gene. What is his genotype?

- p) Complete the Punnett square to show the possibilities that would result if George and Morgan had offspring.

q) List the possible genotypes and phenotypes for the kids.

| | |
|--|--|
| | |
| | |

r) What is the probability of not dark hair? _____ %

s) What is the probability of short dark hair? _____ %

Extra Questions