Dihybrid Crosses

<table>
<thead>
<tr>
<th>Trait</th>
<th>Dominant Allele</th>
<th>Recessive Allele</th>
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<tbody>
<tr>
<td>pod shape</td>
<td>smooth (N)</td>
<td>constricted (n)</td>
</tr>
<tr>
<td>pod color</td>
<td>green (G)</td>
<td>yellow (g)</td>
</tr>
<tr>
<td>flower position</td>
<td>axial (A)</td>
<td>terminal (a)</td>
</tr>
<tr>
<td>plant height</td>
<td>tall (T)</td>
<td>short (t)</td>
</tr>
</tbody>
</table>

1. What are the genotypic and phenotypic ratios in the offspring resulting from a cross between two pea plants that are heterozygous for pod color and pod shape?

Parental genotypes ______________

Possible gametes _____ _____ _____ _____

2. Cross a heterozygous running, heterozygous black mouse with a homozygous running, homozygous black mouse

Parental genotypes ______________

Possible gametes _____ _____ _____ _____

Offspring phenotypic ratio ________________
3. Cross a homozygous running, homozygous black mouse with a heterozygous running, brown mouse

Parental genotypes ___________________
Possible gametes _____ _____ _____ _____
Offspring phenotypic ratio ________________

4. Cross a waltzing brown mouse with a waltzing brown mouse

Parental genotypes ___________________
Possible gametes _____ _____ _____ _____
Offspring phenotypic ratio ________________

5. Cross a homozygous running, heterozygous black mouse with a waltzing brown mouse

Parental genotypes ___________________
Possible gametes _____ _____ _____ _____
Offspring phenotypic ratio ________________

6. Cross a heterozygous running, brown mouse with a heterozygous running, homozygous black mouse

Parental genotypes ___________________
Possible gametes _____ _____ _____ _____
Offspring phenotypic ratio ________________

7. Cross a heterozygous running, heterozygous black mouse with a heterozygous running, heterozygous black mouse

Parental genotypes ___________________
Possible gametes _____ _____ _____ _____
Offspring phenotypic ratio ________________