Problem 1: Dihybrid Cross

When a genetic cross involves the consideration of two factors (such as shape and color in pea seeds), the cross is called a "**dihybrid**".

Use alleles provided: Cross 2 **completely heterozygous round/yellow** seed plants.

R = round seeds, **r** = wrinkled seeds
Y = yellow seeds, **y** = green seeds

1. **Write Parents Genotype in Cross Box.**
   Do NOT put spaces between paired genes
   DO put **one space** on either side of the "x" sign
   (ie. **RrTT x rrTt** for a dihybrid)

Cross: _____

2. **Solve: How many offspring will be round seed/yellow seed?** _____
3. **Solve: How many offspring will be round seed/green seed?** _____
4. **Solve: How many offspring will be wrinkled seed/yellow seed?** _____
5. **Solve: How many offspring will be wrinkled seed/green seed?** _____
6. **Write the ratio of crossing 2 heterozygous parents.** _____

Write Parent Gametes →	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24

Problem 2: Dihybrid Cross

When a genetic cross involves the consideration of two factors (such as shape and color in pea seeds), the cross is called a "**dihybrid**".

Use alleles provided: Cross a **completely heterozygous round/yellow** seeded plant with a **homozygous dominant round/green** seeded plant.

R = round seeds, **r** = wrinkled seeds
Y = yellow seeds, **y** = green seeds

1. **Write 1st Parent x 2nd Parent Genotype**
   Do NOT put spaces between paired genes
   DO put **one space** on either side of the "x" sign
   (ie. **RrTT x rrTt** for a dihybrid)

Cross:

2. **Solve: What percent will be round/yellow seeds?**
3. **Write the phenotype of offspring #9.**
4. **Write the genotype of offspring #13.**

Write Parent Gametes →	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24