Genetics Practice Problems - Simple Worksheet

1. For each genotype below, indicate whether it is heterozygous (He) or homozygous (Ho)

AA	Ee _		Ii	Mm	
Bb	ff		Jj	nn	
Cc	Gg _	<u></u>	kk	00	
DD	HH _	· ·	LL	Pp	
2. For earpossible.	ch of the genot y	/pes below de	termine what phen o	otypes would be	
•	wers are domina	nt to white	Brown eyes are do	minant to blue eyes	
PP Pp pp Round seeds are dominant to wrinkled seeds. RR	BB	auto estado estado de serio.			
PP			Bb	····	
Pp			bb		
pp	·		Bobtails in cats are recessive.		
		TT			
RR			Tt		
Rr			tt		
rr	·				
3. For eac	_	elow, list the	genotypes (rememb	er to use the letter of the	
Straight ha	air is dominant t	o curly. Poi	nted heads are dom	inant to round heads	
straig	ght		pointed		
straig	ght	·	pointed		
curly			round		
	the Punnet squa ant to wrinkled s		of the crosses listed	below. Round seeds	
Rrxrr		What perce	entage of the offspri	ng will be round?	

RR x rr	What percentage	of the offspring will be round?
RR x Rr	What percentage	of the offspring will be round? —
Rr x Rr	What percentage	of the offspring will be round? —
Practice with Cro	sses. Show all work!	SHOW
5. A TT (tall) plant plant).	is crossed with a tt (short	
What percentage of	the offspring will be tall?	
	ssed with a Tt plant.	•
What percentage of	the offspring will be short	?
	round seeded plant (Rr) is ozygous round seeded plai	
What percentage of (RR)?	the offspring will be home	ozygous
8. A homozygous r a homozygous wrin	ound seeded plant is cross kled seeded plant.	sed with
What are the genot	ypes of the parents?	
What percentage of homozygous?	the offspring will also be	
9. In pea plants public flowers.	ourple flowers are domi	nant to
	ed plants are cross, what offspring will be white flow	vered?

10. A white flowered plantis crossed with a plant

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1. For each genotype belo	w, indicate whether it is	heterozygous (He) or hon	nozygous (Ho)
AA Ho (dam)	Ee <u>He</u>		Mm <u>He</u>
Bb He	ff Ho (rec)	J	nn Ho (rec)
Cc He	Gg He		00 HO (rec)
DD Ho (dom)	нн <u>Но (dom</u>)	LL Ho (don)	Pp <u>He</u>
2. For each of the g e possible.	enotypes below de	termine what pheno	types would be

	are dominant to white	Brown eyes are dominant to blue eyes
flowers. PP Rupl	O The second	BB Brown
1	0	Bb Brown
Pp Purp!	0	bb Blve
pp	<u> </u>	Pohtoile in cate are recessive

Round seeds are dominant to wrinkled seeds.

RR Round
Tt No Bu
tt Bobta

3. For each **phenotype** below, list the **genotypes** (remember to use the letter of the dominant trait)

Straight hair is dominant to curly.

Pointed heads are dominant to round heads.

Proposited

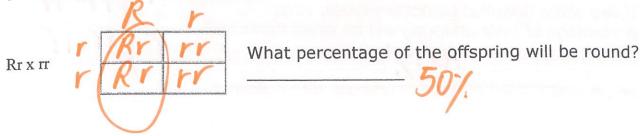
proposited

curly

curly

round

4. Set up the Punnet squares for each of the crosses listed below. Round seeds are dominant to wrinkled seeds.



RR x rr What percentage of the offspring will be round	?
RR x Rr What percentage of the offspring will be round	?
Rr x Rr What percentage of the offspring will be round ———————————————————————————————————	l?
Practice with Crosses. Show all work! SHOW	
5. A TT (tall) plant is crossed with a tt (short plant). What percentage of the offspring will be tall? The state of the offspring will be tall?	
6. A Tt plant is crossed with a Tt plant.	
What percentage of the offspring will be short? 7. A heterozygous round seeded plant (Rr) is crossed with a homozygous round seeded plant (RR).	,
What percentage of the offspring will be homozygous (RR)? 50 /. 8. A homozygous round seeded plant is crossed with a homozygous wrinkled seeded plant.	
What are the genotypes of the parents? RR X What percentage of the offspring will also be homozygous?	
9. In pea plants purple flowers are dominant to white flowers.	
If two white flowered plants are cross, what percentage of their offspring will be white flowered?	
10. A white flowered plantis crossed with a plant	