

Name: Key Date: \_\_\_\_\_ Period: \_\_\_\_\_

Punnett Square Practice Worksheet

**Directions:** For the following Pairs of traits, conduct a Mendelian Monohybrid cross to determine the F1 Generations Genotype and Phenotype.

#1	B	b	#2	C	c
B	BB	Bb	c	Cc	cc
b	Bb	bb	c	Cc	cc

Results:

#1 Dom. Trait: B – Brown Hair

#1 Rec. Trait: b – blonde hair

#1 Phenotypic Ratio: 3 Brown : 1 blonde

#1 Genotypic Ratio: 1 BB : 2 Bb : 1 bb

#2 Dom. Trait: C – Circular Flower

#2 Rec. Trait: c – square flower

#2 Phenotypic Ratio: 1:1

#2 Genotypic Ratio: 1:1

#3	R	r	#4	W	w
r	Rr	rr	w	Ww	ww
r	Rr	rr	w	Ww	ww

Results:

#3 Dom. Trait: R – Round Seed

#3 Rec. Trait: r – wrinkled seed

#3 Phenotypic Ratio: 4:0 <sup>round</sup>

#3 Genotypic Ratio: 4:0 <sub>rr</sub>

#4 Dom. Trait: W – White Fur

#4 Rec. Trait: w – black fur

#4 Phenotypic Ratio: 1:1

#4 Genotypic Ratio: 1:1

#5	T	t	#6	D	d
t	Tt	tt	D	DD	Dd
t	Tt	tt	D	DD	Dd

Results:

#5 Dom. Trait: T – Tall Height

#5 Rec. Trait: t – short height

#5 Phenotypic Ratio: 0 tall : 4 short

#5 Genotypic Ratio: 4 tt : 0

#6 Dom. Trait: D – High Metabolism

#6 Rec. Trait: d – normal metabolism

#6 Phenotypic Ratio: 4 high : 0 low

#6 Genotypic Ratio: 1 DD : 1 Dd