



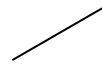
## GROUP DATA TABLE: HOW UNIQUE ARE YOU?

	1	2	3	
4	TRAITS	RECESSIVE STUDENTS DEMONSTRATING "R" TRAIT	NUMBER OF STUDENTS DEMONSTRATING "D" TRAIT "R" TRAIT	PERCENTAGE "D"
<b>NUMBER OF DOMINANT PERCENTAGE DEMONSTRATING TRAIT</b>				
<b>TONGUE-ROLLER</b>	<del><b>NON-ROLLER</b></del> %	/	%	
<b>DARK HAIR</b>	<del><b>LIGHT HAIR</b></del>	/	%	%
<b>FREE EAR LOBES</b>	<del><b>ATTACHED EAR LOBES</b></del> %	/	%	
<b>RIGHT-HANDED</b>	<del><b>LEFT-HANDED</b></del> %	/	%	

---

**WIDOW'S  
PEAK**

**STRAIGHT  
HAIRLINE** %



%

---

## INDIVIDUAL QUESTIONS



**NAME:**

**PLEASE ANSWER QUESTIONS IN WHOLE  
SENTENCES:**

**1. DESCRIBE THE DIFFERENCES BETWEEN DOMINANT AND  
RECESSIVE TRAITS. PROVIDE EXAMPLES.**

---

---

---

**2. IN FLOWERS, PURPLE IS THE DOMINANT TRAIT AND  
YELLOW IS THE RECESSIVE TRAIT. CREATE SYMBOLS  
TO REPRESENT THESE TRAITS AND SHOW:**

**HOMOZYGOUS DOMINANT:** \_\_\_\_\_

**HOMOZYGOUS**

**RECESSIVE:** \_\_\_\_\_

## HETEROZYGOUS

**DOMINANT:** \_\_\_\_\_

**3. EXPLAIN WHY THERE CAN BE NO SUCH ALLELE AS HETEROZYGOUS RECESSIVE. BE SPECIFIC.**

---

---

---

**4. WHERE DID YOUR DOMINANT AND RECESSIVE TRAITS COME FROM?**

---

---

**5. HOW COME CHILDREN FROM THE SAME FAMILY CAN HAVE VERY DIFFERENT TRAITS?**

---

---

## ANSWER KEY

### QUESTIONS:

**1. DESCRIBE THE DIFFERENCES BETWEEN DOMINANT AND RECESSIVE TRAITS. PROVIDE EXAMPLES.**

Dominant traits are the stronger traits and can cover up the weaker recessive traits. Dominant traits are written as a capital letter, and recessive traits are written as a lowercase letter.

**2. IN FLOWERS, PURPLE IS THE DOMINANT TRAIT AND YELLOW IS THE RECESSIVE TRAIT. CREATE SYMBOLS TO REPRESENT THESE TRAITS AND SHOW:**

**HOMOZYGOUS DOMINANT: VV**

**HOMOZYGOUS**

**RECESSIVE: vv**

V = purple

**HETEROZYGOUS**

**DOMINANT: Vv**

v = yellow

**3. EXPLAIN WHY THERE CAN BE NO SUCH ALLELE AS HETEROZYGOUS RECESSIVE. BE SPECIFIC.**

Heterozygous means that there is an allele that consists of one dominant and one recessive trait. In that case, it is impossible for the recessive trait to be displayed. The dominant trait will always cover it up.

**4. WHERE DID YOUR DOMINANT AND RECESSIVE TRAITS COME FROM? DOMINANT AND RECESSIVE TRAITS ARE HANDED DOWN FROM PARENTS TO OFFSPRING.**

**5. HOW COME CHILDREN FROM THE SAME FAMILY CAN HAVE VERY DIFFERENT TRAITS? THE VARIATION OR DIFFERENCE IN EACH OFFSPRING IS DUE TO THE EXCHANGE AND INTERACTION OF COMBINATION OF DOMINANT AND RECESSIVE GENES. SINCE RECESSIVE GENES DON'T "SHOW-UP" IF THEY ARE COMBINED WITH A DOMINANT GENE, YOU MIGHT NOT EVEN REALIZE**

**THEY ARE THERE. SOMEONE WITH DARK BROWN HAIR (DOMINANT) MIGHT ALSO HAVE A GENE FOR RED HAIR (RECESSIVE.) OFFSPRING HAIR COLOR WILL DEPEND ON WHO THE OTHER PARENT IS AND WHAT DOMINANT AND RECESSIVE GENES THAT PARENT HAS. WE CAN PREDICT HOW GENES WILL COMBINE BUT CANNOT GUARANTEE IT.**