



# Alien Genetics Practice Problems



1. For each genotype (2 letter code) below, indicate whether it is heterozygous (**He**) or homozygous (**Ho**)

AA \_\_\_\_\_

li \_\_\_\_\_

Mm \_\_\_\_\_

Tt \_\_\_\_\_

Bb \_\_\_\_\_

Cc \_\_\_\_\_

Jj \_\_\_\_\_

QQ \_\_\_\_\_

oo \_\_\_\_\_

DD \_\_\_\_\_

LI \_\_\_\_\_

Pp \_\_\_\_\_

2. For each of the **genotypes (code)** below write the **phenotypes (what we see)**.

*Pink skin is dominant to green skin.*

*No horns are dominant to horns*

PP \_\_\_\_\_

NN \_\_\_\_\_

Pp \_\_\_\_\_

Nn \_\_\_\_\_

pp \_\_\_\_\_

nn \_\_\_\_\_

*Head set eyes are dominant to stalks*

*Tails in aliens are recessive.*

HH \_\_\_\_\_

TT \_\_\_\_\_

Hh \_\_\_\_\_

Tt \_\_\_\_\_

hh \_\_\_\_\_

tt \_\_\_\_\_

3. For each **phenotype (what we see)** below, write the **genotypes (code)** (remember to use the letter of the dominant trait)

*Antennas are dominant to no antennas*

*Blue skin is dominant to orange skin*

\_\_\_\_\_ antenna      \_\_\_\_\_ antenna

\_\_\_\_\_ blue      \_\_\_\_\_ blue

\_\_\_\_\_ no antenna

\_\_\_\_\_ orange

## Vocabulary

**Heterozygous:** two different alleles

**Homozygous:** two same alleles

**Dominant:** The allele always expressed, represented by a capital letter

**Recessive:** the allele only expressed when it is pair with itself, represented by a small letter.

**Genotype:** two allele code for a characteristic, written using two letters.

**Phenotype:** the physical expression of the genotype, what we see

