

Name _____
Lab Quiz 2
November 17, 2008

Grade ____/15

For questions 1 – 3:

Green peas “g” are recessive and yellow peas “G” are dominant
Wrinkled “r” pea shape is recessive and round peas “R” are dominant

1) If a pea plant that is true breeding individual for green round peas is crossed with a true breeding plant for yellow wrinkled peas what is the F1 generations **(1 pt)**

a) Genotype(s)?

b) Phenotype(s)?

2) Draw the punnet square for an F1 generation individual that was crossed with another F1 individual(sib-sib cross). **(2 pts)**

3) For the F2 generation: **(1 pt)**

a) What is the ratio of the F2 generation phenotypes?

b) What is the ratio of true breeding individuals for both traits?

4) Why did we use root tips for the mitosis lab? **(1pt)**

5) Why is meiosis important for sexual reproduction? **(1 pt)**

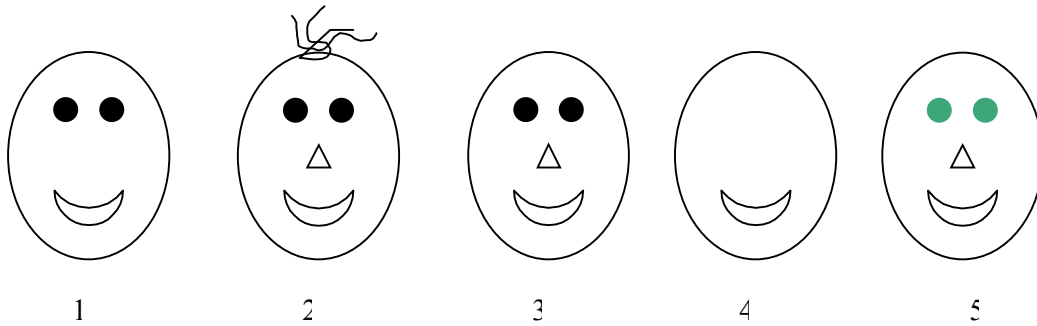
6) What type of cells are haploid? **(1 pt)**

7) What is the difference between an analogous structure and a homologous structure? And give an example for each. (2 pts)

9) Using the Integrated Taxonomic Information System website <http://www.itis.gov/> what is taxonomic hierarchy for *Zea mays*, *Nereis*, *Daphnia* and *Paramecium caudatum*. (2 pts)

10) Draw a parsimonious cladogram for this sequence of events, with the individuals below (2 pts)

- Event A: Evolution of Eyes
- Event B: Evolution of Nose
- Event C: Evolution of Hair
- Event D: Evolution of Green Eyes



11) What are 2 other examples of stimulants beside what we used in the Daphnia lab? (1 pt)

12) What are 2 other examples of depressants besides what we used in the Daphnia lab? (1 pt)