

2.2 Using Meiosis to Explain Lucy & Maria

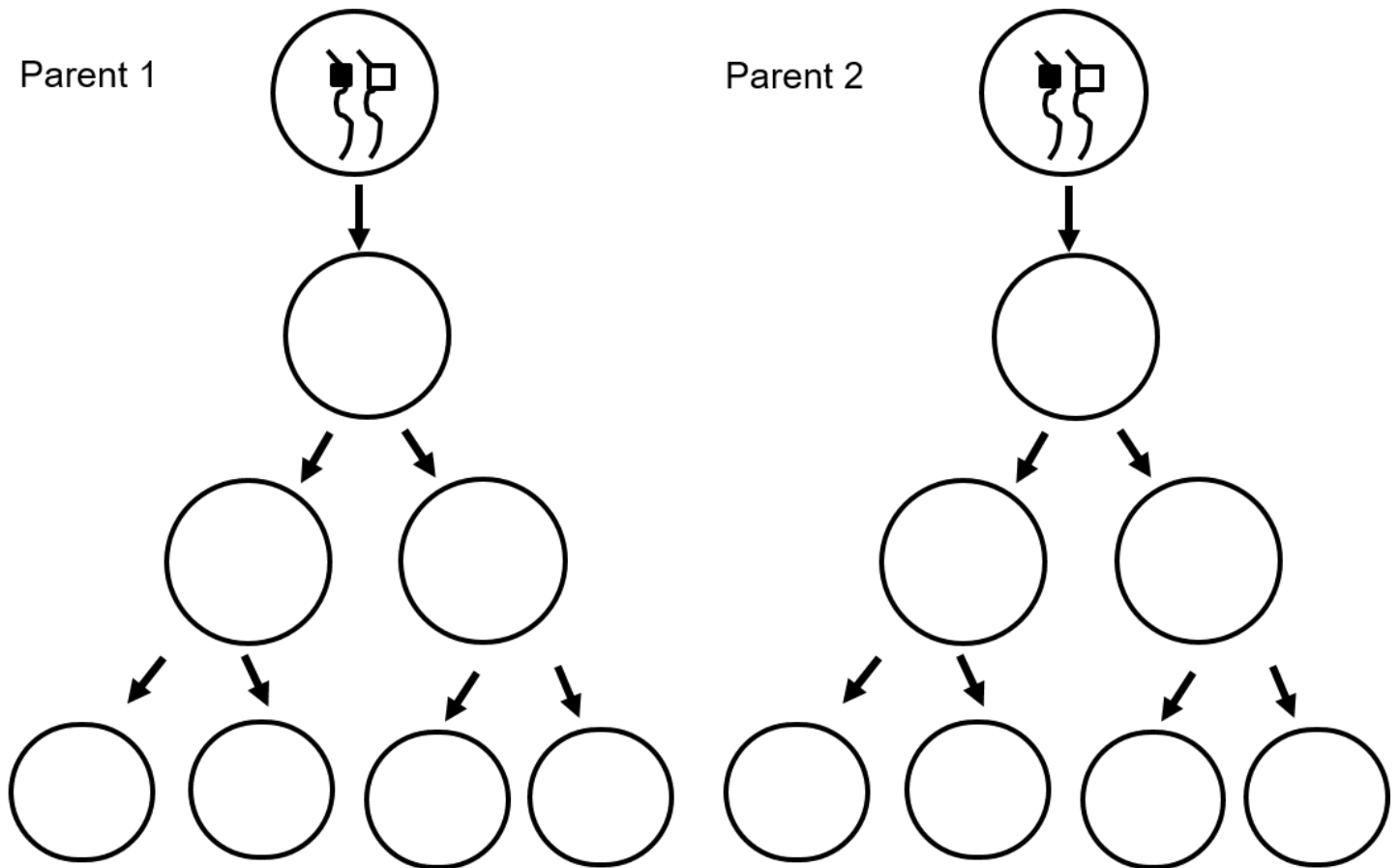
Name: _____ Hr: ____

Our **body cells** have two copies of each chromosome. *How do we get more body cells?*

Our **sex cells**, or gametes (sperm and egg) only contain one set of chromosomes. *How do we get our sex cells?*

Complete the Diagram below showing how meiosis could occur for an organism with one pair of chromosomes. Add captions to describe what is happening. Finish the diagram to include an example of what Fertilization could look like.

Meiosis

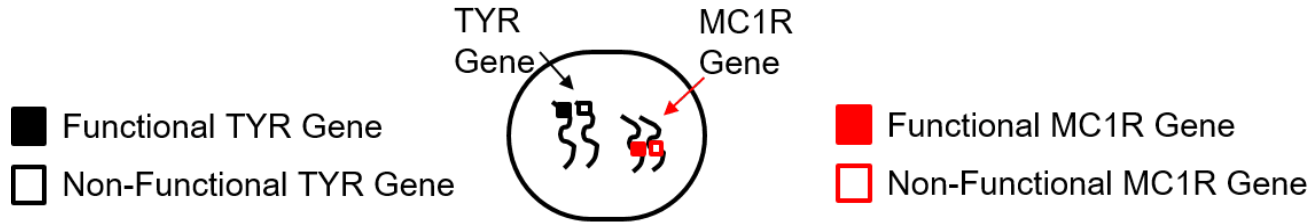


Fertilization

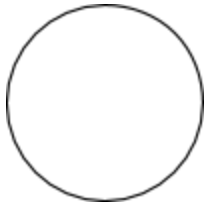
2.2 Using Meiosis to Explain Lucy & Maria

Name: _____ Hr: ____

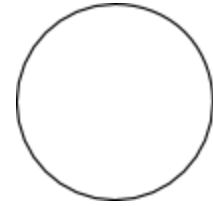
We have learned about two different genes (TYR and MC1R) that affect the amount and type of melanin our cells produce which determines our skin, eye, and hair color. Lucy and Maria's dad has pale skin that burns and red hair. Their mother has dark skin that gets even darker when she tans. Using our model and the key below, how might you represent the cells of the mom and dad?



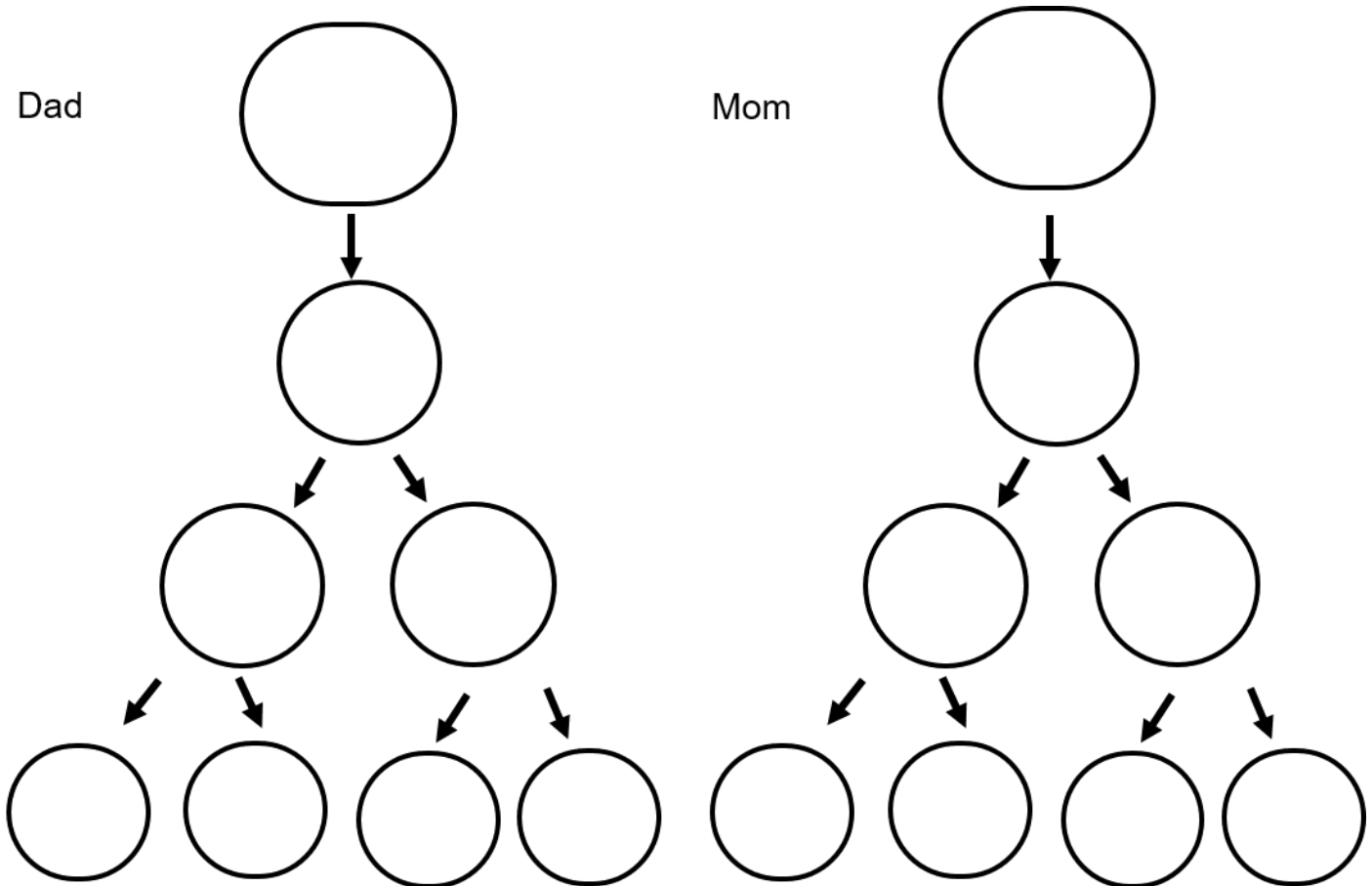
Father:



Mother:



Model Meiosis: Using this model for their mother and father, show how meiosis could occur.



Model Fertilization: Use this model to show how eggs and sperm might combine to produce Lucy and Maria.