MCAS Open Response Question - Meiosis

Answer the following MCAS question. Think about the scoring rubric we saw in class and try to give the most complete answer you can. You will receive a score based on the MCAS scoring rubric.

Fruit flies have eight chromosomes in their body cells. Fruit flies produce gametes for reproduction by meiosis.

- a. In the space below draw and label a fruit fly sperm cell, a fruit fly egg cell, and the cell that results from the fertilization process. Clearly show the number of chromosomes in **each** cell's nucleus.
- b. Summarize what happens at the chromosome level as a result of fertilization.
- c. Describe what will occur in the step immediately after fertilization.