Meiosis Test

1. A gene’s specific location on a chromosome is known as what?

Answer: locus

1. *Drosophila* has a diploid number of what?

Answer: 8

1. All plants follow what type of life cycle?

Answer: Alternation of generations

1. What is the name of the diploid stage of a plant’s life cycle?

Answer: Sporophyte

1. In fungi, what does meiosis give rise to?

Answer: Haploid cells that divide into adult organisms

1. What is the name for different versions of a gene?

Answer: Alleles

1. During what stage of meiosis are sister chromatids pulled apart?

Answer: Anaphase II

1. During late prophase, homologs are connected by X-shaped regions known as what?

Answer: Chiasma

1. During synapsis, homologs are physically connected by a zipper-like protein structure known as what?

Answer: Synaptonemal Complex

1. What is also known as equational division?

Answer: Meiosis II

1. What is the name of the protein that protects cohesions from cleavage during meiosis I?

Answer: Shugoshin

1. During what stage of meiosis does synapsis end?

Answer: Prophase I

1. What is the longest stage of meiosis?

Answer: Prophase I

1. During what stage of meiosis do microtubules connect to the kinetochores?

Answer: Prophase I

1. During what stage of meiosis does a spindle apparatus form but no genetic recombination occurs?

Answer: Prophase II

1. What type of division is meiosis I?

Answer: Reductional

1. In meiosis II, why aren’t the sister chromatids genetically identical?

Answer: Crossing over in meiosis I

1. What is the term for an ordered display of every chromosome in a cell?

Answer: Karyotype

1. During what phase are cohesins cleaved?

Answer: Anaphase II

1. How many different combinations of maternal and paternal chromosomes can be made in the games of an organism with 2n=8?

Answer: 16