

### Chapter 13 Concept Overview: Meiosis

1. Explain how asexual reproduction is different from sexual reproduction.
  
  
  
  
  
  
  
  
  
  
2. Explain what happens during crossing over and when it occurs in meiosis.
  
  
  
  
  
  
  
  
  
  
3. How is metaphase I different from metaphase of mitosis?
  
  
  
  
  
  
  
  
  
  
4. Explain why sexual reproduction increases variation among offspring much more than asexual reproduction does.
  
  
  
  
  
  
  
  
  
  
5. How many possible genetic variations can be produced during meiosis and sexual reproduction?
  
  
  
  
  
  
  
  
  
  
6. How is sexual reproduction related to gender determination in mammals?
  
  
  
  
  
  
  
  
  
  
7. If the progenitor cell of a gamete has 12 pairs of chromosomes during G1 of interphase, how many chromosomes will the following cells have?
  1. after S phase of interphase.
  2. a daughter cell immediately following cytokinesis I of meiosis.
  3. a daughter cell during anaphase II of meiosis.
  4. a daughter cell immediately following cytokinesis II of meiosis.