

Concepts of Genetics, 3e (Brooker)

Chapter 2 Reproduction and Chromosome Transmission

- 1) Select traits associated with prokaryotic cells. Check all that apply.
 - A) Genetic information is contained within a nucleoid region.
 - B) Genetic material is organized as a single circular chromosome.
 - C) They have a cell wall surrounding their plasma membrane.
 - D) They have membrane-bound organelles in their cytoplasm.

- 2) Cytokinesis in animals occurs through the formation of a _____, whereas in plants a _____ forms.
 - A) cleavage furrow; cell plate
 - B) cell plate; cleavage furrow
 - C) cleavage furrow; kinetochore
 - D) kinetochore; cell plate

- 3) Select the cells that are eukaryotic. Check all that apply.
 - A) bacteria
 - B) fungi
 - C) protists
 - D) plants
 - E) animals

- 4) Organelles are _____.
 - A) structures that contain the genetic material
 - B) membrane-bound compartments of eukaryotic cells
 - C) the region that contains the DNA in prokaryotic cells
 - D) the outer, rigid covering of a prokaryotic cell

- 5) A cytogeneticist would primarily do which of the following?
 - A) study the distribution of traits in a population
 - B) study the evolutionary changes in a specific trait
 - C) examine chromosomes using a karyotype
 - D) determine the genetic sequence of a specific gene

- 6) A karyotype is a(n) _____.
 - A) organelle of eukaryotic cells
 - B) stage of prophase I in meiosis
 - C) division of the cytoplasmic material following mitosis
 - D) photographic representation of the chromosomes of a cell

- 7) During sexual reproduction, each parent contributes one set of chromosomes. Similar chromosomes from each parent are called _____.
- A) karyotypes
 - B) sister chromatids
 - C) homologs
 - D) sex chromosomes
- 8) Which of the following would contain genetic material that is 100% identical?
- A) homologous chromosomes
 - B) sister chromatids
 - C) X and Y chromosomes
 - D) All of these choices are identical.
- 9) The location of a gene on a chromosome is called its _____.
- A) karyotype
 - B) allele
 - C) locus
 - D) homolog
- 10) Cell division in prokaryotic cells is called _____, while in eukaryotic cells it is called _____.
- A) binary fission; binary fission
 - B) binary fission; mitosis
 - C) mitosis; mitosis
 - D) mitosis; binary fission
- 11) The process of binary fission is primarily used for asexual reproduction in _____.
- A) prokaryotes
 - B) eukaryotes
- 12) During this phase of the cell cycle, the sister chromatids are formed in
- A) G₁ phase
 - B) G₂ phase
 - C) S phase
 - D) Prophase
 - E) Cytokinesis
- 13) Select the phases that are part of interphase. Check all that apply.
- A) G₁ phase
 - B) G₂ phase
 - C) S phase
 - D) Metaphase

14) Select the characteristics that are true of restriction points. Check all that apply.

- A) An example is the boundary between G_1 and S phase.
- B) In many cases molecular changes must be present at this point for the cell to continue through the cell cycle.
- C) Cells passing this point are committed to the next stage of the cell cycle.
- D) Cells passing this point can reverse to an earlier phase of the cell cycle.

15) Select the phase when chromosomes start to condense.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

16) Select the phase when sister chromatids separate and move towards opposite poles of the cell.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

17) Select the phase during which the centrosomes move to opposite poles of the cell.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

18) Select the phase when the chromosomes line up in the center of the cell.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

19) Select the phase when the nuclear membrane starts to disassociate.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

- 20) Select the phase when the nuclear membrane reforms around the chromosomes.
- A) Metaphase
 - B) Prometaphase
 - C) Telophase
 - D) Anaphase
 - E) Prophase
- 21) Select the phase when the microtubules of the spindle fiber attach to the kinetochore.
- A) Metaphase
 - B) Prometaphase
 - C) Telophase
 - D) Anaphase
 - E) Prophase
- 22) Select the phase when the separated sister chromatids are considered independent chromosomes.
- A) Metaphase
 - B) Prometaphase
 - C) Telophase
 - D) Anaphase
 - E) Prophase
- 23) Which of the following indicates the correct order of these events?
- A) Anaphase - Telophase - Prophase - Prometaphase - Metaphase
 - B) Telophase - Prometaphase - Prophase - Metaphase - Anaphase
 - C) Metaphase - Prometaphase - Prophase - Anaphase - Telophase
 - D) Prophase - Prometaphase - Metaphase - Anaphase - Telophase
- 24) In animals, somatic cells are _____ and gametes are _____.
- A) diploid; diploid
 - B) diploid; haploid
 - C) haploid; diploid
 - D) haploid; haploid
- 25) If the gametes of an organism are different morphologically, they are said to be _____.
- A) isogamous
 - B) heterogamous
 - C) diploid
 - D) haploid
- 26) The general purpose of the synaptonemal complex is to _____.
- A) provide a link between homologous chromosomes in meiosis
 - B) enable the reformation of the cell wall during cytokinesis
 - C) separate the sister chromatids during anaphase
 - D) independently assort the chromosomes during metaphase of meiosis

- 27) Which of the following occurs during leptotene of prophase I?
A) The homologous chromosomes recognize one another by synapsis.
B) Crossing over occurs.
C) The replicated chromosomes condense.
D) The synaptonemal complex dissociates.
- 28) A bivalent contains how many sister chromatids?
A) 2
B) 4
C) 8
D) depends on the cell
- 29) The process of crossing over occurs during which of the following?
A) diakinesis
B) diplotene
C) pachytene
D) zygotene
E) leptotene
- 30) The bivalent structure forms during which of the following?
A) leptotene
B) zygotene
C) pachytene
D) diplotene
E) diakinesis
- 31) Which of the following represents the correct order of events during prophase I?
A) Pachytene - diplotene - diakinesis - leptotene - zygotene
B) Leptotene - zygotene - pachytene - diplotene - diakinesis
C) zygotene - leptotene - pachytene - diakinesis - diplotene
D) Diplotene - pachytene - leptotene - diakinesis - zygotene
- 32) The physical structure that is formed when two chromatids cross over is called a(n) _____.
A) synaptonemal complex
B) bivalent
C) karyotype
D) chiasma
- 33) If an organism has five pairs of chromosomes, how many chromosomal combinations are possible at metaphase I of meiosis?
A) 5^2
B) 10^5
C) 5^{10}
D) 2^5

- 34) The end result of meiosis in animals is _____.
- A) two diploid cells
 - B) two haploid cells
 - C) four diploid cells
 - D) four haploid cells
- 35) The process of meiosis II is similar to that of _____.
- A) mitosis
 - B) binary fission
 - C) meiosis I
- 36) Oogenesis is a gametogenic process in which cells undergo _____ to produce _____.
- A) binary fission; sperm cells
 - B) mitosis; egg cells
 - C) meiosis; egg cells
 - D) meiosis; sperm cells
 - E) mitosis; sperm cells
- 37) In plants, the haploid generation is called the _____ and the diploid generation is called the _____.
- A) sporophyte; spermatogenesis
 - B) gametophyte; sporophyte
 - C) sporophyte; gametophyte
 - D) oogenesis; gametophyte
- 38) In plants, spore production occurs by
- A) spermatogenesis
 - B) meiosis
 - C) mitosis
 - D) binary fission
 - E) oogenesis
- 39) A pollen grain in a plant represents the _____.
- A) male gametophyte
 - B) female gametophyte
 - C) male sporophyte
 - D) female sporophyte
- 40) Which type of microtubule is paired to its correct function?
- A) polar microtubules - attach to the kinetochore
 - B) aster microtubules - position the spindle apparatus
 - C) kinetochore microtubules - separate the poles

41) During sexual reproduction, gametes are made that contain _____ amount of genetic material as a somatic cell in the organism.

- A) twice the
- B) half the
- C) the same
- D) a quarter of the

42) Genes are physically located within _____.

- A) chromosomes
- B) centrosomes
- C) kinetochores
- D) microtubules

Concepts of Genetics, 3e (Brooker)

Chapter 2 Reproduction and Chromosome Transmission

1) Select traits associated with prokaryotic cells. Check all that apply.

- A) Genetic information is contained within a nucleoid region.
- B) Genetic material is organized as a single circular chromosome.
- C) They have a cell wall surrounding their plasma membrane.
- D) They have membrane-bound organelles in their cytoplasm.

Answer: A, B, C

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 1. Remember

Learning Outcome: 02.01.02 Outline key differences between prokaryotic and eukaryotic cells.

Accessibility: Keyboard Navigation

2) Cytokinesis in animals occurs through the formation of a _____, whereas in plants a _____ forms.

- A) cleavage furrow; cell plate
- B) cell plate; cleavage furrow
- C) cleavage furrow; kinetochore
- D) kinetochore; cell plate

Answer: A

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.03 Outline the key differences between cytokinesis in animal and plant cells.

Accessibility: Keyboard Navigation

3) Select the cells that are eukaryotic. Check all that apply.

- A) bacteria
- B) fungi
- C) protists
- D) plants
- E) animals

Answer: B, C, D, E

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 2. Understand

Learning Outcome: 02.01.02 Outline key differences between prokaryotic and eukaryotic cells.

Accessibility: Keyboard Navigation

- 4) Organelles are _____.
- A) structures that contain the genetic material
 - B) membrane-bound compartments of eukaryotic cells
 - C) the region that contains the DNA in prokaryotic cells
 - D) the outer, rigid covering of a prokaryotic cell

Answer: B

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 2. Understand

Learning Outcome: 02.01.02 Outline key differences between prokaryotic and eukaryotic cells.

Accessibility: Keyboard Navigation

- 5) A cytogeneticist would primarily do which of the following?
- A) study the distribution of traits in a population
 - B) study the evolutionary changes in a specific trait
 - C) examine chromosomes using a karyotype
 - D) determine the genetic sequence of a specific gene

Answer: C

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 2. Understand

Learning Outcome: 02.01.03 Describe the procedure for making a karyotype.

Accessibility: Keyboard Navigation

- 6) A karyotype is a(n) _____.
- A) organelle of eukaryotic cells
 - B) stage of prophase I in meiosis
 - C) division of the cytoplasmic material following mitosis
 - D) photographic representation of the chromosomes of a cell

Answer: D

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 2. Understand

Learning Outcome: 02.01.03 Describe the procedure for making a karyotype.

Accessibility: Keyboard Navigation

7) During sexual reproduction, each parent contributes one set of chromosomes. Similar chromosomes from each parent are called _____.

- A) karyotypes
- B) sister chromatids
- C) homologs
- D) sex chromosomes

Answer: C

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 2. Understand

Learning Outcome: 02.01.04 Compare and contrast the similarities and differences between homologous chromosomes.

Accessibility: Keyboard Navigation

8) Which of the following would contain genetic material that is 100% identical?

- A) homologous chromosomes
- B) sister chromatids
- C) X and Y chromosomes
- D) All of these choices are identical.

Answer: B

Section: 02.02

Topic: Cell Division

Bloom's: 2. Understand

Learning Outcome: 02.02.02 Outline the phases of the eukaryotic cell cycle.

Accessibility: Keyboard Navigation

9) The location of a gene on a chromosome is called its _____.

- A) karyotype
- B) allele
- C) locus
- D) homolog

Answer: C

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 1. Remember

Learning Outcome: 02.01.04 Compare and contrast the similarities and differences between homologous chromosomes.

Accessibility: Keyboard Navigation

10) Cell division in prokaryotic cells is called _____, while in eukaryotic cells it is called _____.

- A) binary fission; binary fission
- B) binary fission; mitosis
- C) mitosis; mitosis
- D) mitosis; binary fission

Answer: B

Section: 02.02

Topic: Cell Division

Bloom's: 1. Remember

Learning Outcome: 02.02.01 Describe the process of binary fission in bacteria.; 02.02.02 Outline the phases of the eukaryotic cell cycle.

Accessibility: Keyboard Navigation

11) The process of binary fission is primarily used for asexual reproduction in _____.

- A) prokaryotes
- B) eukaryotes

Answer: A

Section: 02.02

Topic: Cell Division

Bloom's: 2. Understand

Learning Outcome: 02.02.01 Describe the process of binary fission in bacteria.

Accessibility: Keyboard Navigation

12) During this phase of the cell cycle, the sister chromatids are formed in

- A) G₁ phase
- B) G₂ phase
- C) S phase
- D) Prophase
- E) Cytokinesis

Answer: C

Section: 02.02

Topic: Cell Division

Bloom's: 2. Understand

Learning Outcome: 02.02.02 Outline the phases of the eukaryotic cell cycle.

Accessibility: Keyboard Navigation

13) Select the phases that are part of interphase. Check all that apply.

- A) G₁ phase
- B) G₂ phase
- C) S phase
- D) Metaphase

Answer: A, B, C

Section: 02.02

Topic: Cell Division

Bloom's: 2. Understand

Learning Outcome: 02.02.02 Outline the phases of the eukaryotic cell cycle.

Accessibility: Keyboard Navigation

14) Select the characteristics that are true of restriction points. Check all that apply.

- A) An example is the boundary between G₁ and S phase.
- B) In many cases molecular changes must be present at this point for the cell to continue through the cell cycle.
- C) Cells passing this point are committed to the next stage of the cell cycle.
- D) Cells passing this point can reverse to an earlier phase of the cell cycle.

Answer: A, B, C

Section: 02.02

Topic: Cell Division

Bloom's: 2. Understand

Learning Outcome: 02.02.02 Outline the phases of the eukaryotic cell cycle.

Accessibility: Keyboard Navigation

15) Select the phase when chromosomes start to condense.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: E

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

16) Select the phase when sister chromatids separate and move towards opposite poles of the cell.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: D

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

17) Select the phase during which the centrosomes move to opposite poles of the cell.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: B

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

18) Select the phase when the chromosomes line up in the center of the cell.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: A

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

19) Select the phase when the nuclear membrane starts to disassociate.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: E

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

20) Select the phase when the nuclear membrane reforms around the chromosomes.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: C

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

21) Select the phase when the microtubules of the spindle fiber attach to the kinetochore.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: B

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

22) Select the phase when the separated sister chromatids are considered independent chromosomes.

- A) Metaphase
- B) Prometaphase
- C) Telophase
- D) Anaphase
- E) Prophase

Answer: D

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

23) Which of the following indicates the correct order of these events?

- A) Anaphase - Telophase - Prophase - Prometaphase - Metaphase
- B) Telophase - Prometaphase - Prophase - Metaphase - Anaphase
- C) Metaphase - Prometaphase - Prophase - Anaphase - Telophase
- D) Prophase - Prometaphase - Metaphase - Anaphase - Telophase

Answer: D

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 1. Remember

Learning Outcome: 02.03.02 List and describe the phases of mitosis.

Accessibility: Keyboard Navigation

24) In animals, somatic cells are _____ and gametes are _____.

- A) diploid; diploid
- B) diploid; haploid
- C) haploid; diploid
- D) haploid; haploid

Answer: B

Section: 02.05

Topic: Sexual Reproduction

Bloom's: 1. Remember

Learning Outcome: 02.05.02 Describe how animals make sperm and egg cells.

Accessibility: Keyboard Navigation

- 25) If the gametes of an organism are different morphologically, they are said to be _____.
- A) isogamous
 - B) heterogamous
 - C) diploid
 - D) haploid

Answer: B

Section: 02.05

Topic: Sexual Reproduction

Bloom's: 1. Remember

Learning Outcome: 02.05.02 Describe how animals make sperm and egg cells.

Accessibility: Keyboard Navigation

- 26) The general purpose of the synaptonemal complex is to _____.
- A) provide a link between homologous chromosomes in meiosis
 - B) enable the reformation of the cell wall during cytokinesis
 - C) separate the sister chromatids during anaphase
 - D) independently assort the chromosomes during metaphase of meiosis

Answer: A

Section: 02.04

Topic: Meiosis

Bloom's: 2. Understand

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

- 27) Which of the following occurs during leptotene of prophase I?
- A) The homologous chromosomes recognize one another by synapsis.
 - B) Crossing over occurs.
 - C) The replicated chromosomes condense.
 - D) The synaptonemal complex dissociates.

Answer: C

Section: 02.04

Topic: Meiosis

Bloom's: 1. Remember

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

28) A bivalent contains how many sister chromatids?

- A) 2
- B) 4
- C) 8
- D) depends on the cell

Answer: B

Section: 02.04

Topic: Meiosis

Bloom's: 2. Understand

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

29) The process of crossing over occurs during which of the following?

- A) diakinesis
- B) diplotene
- C) pachytene
- D) zygotene
- E) leptotene

Answer: C

Section: 02.04

Topic: Meiosis

Bloom's: 1. Remember

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

30) The bivalent structure forms during which of the following?

- A) leptotene
- B) zygotene
- C) pachytene
- D) diplotene
- E) diakinesis

Answer: B

Section: 02.04

Topic: Meiosis

Bloom's: 1. Remember

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

31) Which of the following represents the correct order of events during prophase I?

- A) Pachytene - diplotene - diakinesis - leptotene - zygotene
- B) Leptotene - zygotene - pachytene - diplotene - diakinesis
- C) zygotene - leptotene - pachytene - diakinesis - diplotene
- D) Diplotene - pachytene - leptotene - diakinesis - zygotene

Answer: B

Section: 02.04

Topic: Meiosis

Bloom's: 1. Remember

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

32) The physical structure that is formed when two chromatids cross over is called a(n)

- _____.
- A) synaptomenal complex
 - B) bivalent
 - C) karyotype
 - D) chiasma

Answer: D

Section: 02.04

Topic: Meiosis

Bloom's: 1. Remember

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

33) If an organism has five pairs of chromosomes, how many chromosomal combinations are possible at metaphase I of meiosis?

- A) 5^2
- B) 10^5
- C) 5^{10}
- D) 2^5

Answer: D

Section: 02.04

Topic: Meiosis

Bloom's: 4. Analyze

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

34) The end result of meiosis in animals is _____.

- A) two diploid cells
- B) two haploid cells
- C) four diploid cells
- D) four haploid cells

Answer: D

Section: 02.04

Topic: Meiosis

Bloom's: 2. Understand

Learning Outcome: 02.04.01 List and describe the phases of meiosis.

Accessibility: Keyboard Navigation

35) The process of meiosis II is similar to that of _____.

- A) mitosis
- B) binary fission
- C) meiosis I

Answer: A

Section: 02.04

Topic: Meiosis

Bloom's: 2. Understand

Learning Outcome: 02.04.02 Compare and contrast the key differences between mitosis and meiosis.

Accessibility: Keyboard Navigation

36) Oogenesis is a gametogenic process in which cells undergo _____ to produce _____.

- A) binary fission; sperm cells
- B) mitosis; egg cells
- C) meiosis; egg cells
- D) meiosis; sperm cells
- E) mitosis; sperm cells

Answer: C

Section: 02.05

Topic: Sexual Reproduction

Bloom's: 2. Understand

Learning Outcome: 02.05.02 Describe how animals make sperm and egg cells.

Accessibility: Keyboard Navigation

37) In plants, the haploid generation is called the _____ and the diploid generation is called the _____.

- A) sporophyte; spermatogenesis
- B) gametophyte; sporophyte
- C) sporophyte; gametophyte
- D) oogenesis; gametophyte

Answer: B

Section: 02.05

Topic: Sexual Reproduction

Bloom's: 1. Remember

Learning Outcome: 02.05.03 Explain how plants alternate between haploid and diploid generations.

Accessibility: Keyboard Navigation

38) In plants, spore production occurs by

- A) spermatogenesis
- B) meiosis
- C) mitosis
- D) binary fission
- E) oogenesis

Answer: B

Section: 02.05

Topic: Sexual Reproduction

Bloom's: 1. Remember

Learning Outcome: 02.05.03 Explain how plants alternate between haploid and diploid generations.

Accessibility: Keyboard Navigation

39) A pollen grain in a plant represents the _____.

- A) male gametophyte
- B) female gametophyte
- C) male sporophyte
- D) female sporophyte

Answer: A

Section: 02.05

Topic: Sexual Reproduction

Bloom's: 2. Understand

Learning Outcome: 02.05.03 Explain how plants alternate between haploid and diploid generations.

Accessibility: Keyboard Navigation

40) Which type of microtubule is paired to its correct function?

- A) polar microtubules - attach to the kinetochore
- B) aster microtubules - position the spindle apparatus
- C) kinetochore microtubules - separate the poles

Answer: B

Section: 02.03

Topic: Mitosis and Cytokinesis

Bloom's: 2. Understand

Learning Outcome: 02.03.01 Describe the structure and function of the mitotic spindle.

Accessibility: Keyboard Navigation

41) During sexual reproduction, gametes are made that contain _____ amount of genetic material as a somatic cell in the organism.

- A) twice the
- B) half the
- C) the same
- D) a quarter of the

Answer: B

Section: 02.05

Topic: Sexual Reproduction

Bloom's: 1. Remember

Learning Outcome: 02.05.01 Define sexual reproduction.

Accessibility: Keyboard Navigation

42) Genes are physically located within _____.

- A) chromosomes
- B) centrosomes
- C) kinetochores
- D) microtubules

Answer: A

Section: 02.01

Topic: General Features of Chromosomes

Bloom's: 1. Remember

Learning Outcome: 02.01.01 Define the term chromosome.

Accessibility: Keyboard Navigation