

17.3. MEIOSIS

01. 0610_w16_qp_23 Q: 31

What happens in mitosis?

	genetically identical cells produced	chromosome number is halved
A	✓	✓
B	✓	✗
C	✗	✓
D	✗	✗

17.3 Meiosis

02. 0610_m21_qp_22 Q: 34

A sunflower has 17 chromosomes in each pollen nucleus. These nuclei are produced by the process of1..... in the anthers. They are genetically2..... all the pollen nuclei produced by those anthers. After fertilisation the resulting zygote will have3..... chromosomes.

Which row correctly completes gaps 1, 2 and 3?

	1	2	3
A	meiosis	identical to	34
B	meiosis	different from	34
C	mitosis	identical to	17
D	mitosis	different from	34

03. 0610_s21_qp_21 Q: 33

Which statement about meiosis is correct?

- A** Daughter cells are genetically identical.
- B** The chromosome number changes from haploid to diploid.
- C** It is used to produce body cells.
- D** It allows the formation of new combinations of chromosomes.

04. 0610_s21_qp_23 Q: 34

What happens during meiosis?

- A** A haploid cell produces haploid cells that are genetically identical.
 - B** A haploid cell produces haploid cells that are genetically different.
 - C** A diploid cell produces haploid cells that are genetically identical.
 - D** A diploid cell produces haploid cells that are genetically different.
-

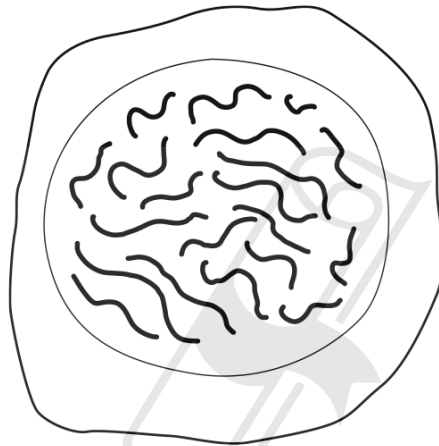
05. 0610_m20_qp_22 Q: 34

Which statement is a correct description of the role of meiosis?

- A to create genetically identical daughter cells
- B to halve the chromosome number in the daughter cells
- C to create diploid daughter cells
- D to maintain the chromosome number in the daughter cells

06. 0610_p20_qp_20 Q: 29

The diagram shows a cell of an organism formed by reduction division. The nucleus contains 20 chromosomes.

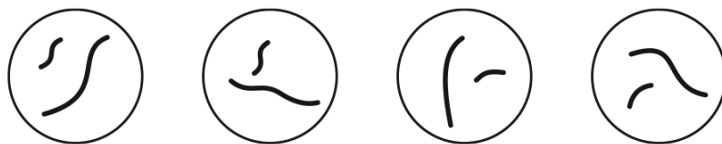


What is the diploid number for this organism?

- A 10
- B 20
- C 40
- D 46

07. 0610_s20_qp_21 Q: 31

The diagram shows the chromosomes of four daughter cells produced by meiosis.



Which parent cell produced these cells?



17.3. MEIOSIS

08. 0610_s20_qp_22 Q: 31

Which statement about meiosis is correct?

- A** At the end of meiosis a zygote has been produced.
 - B** During meiosis the haploid number is halved in the daughter cells.
 - C** Meiosis is reduction division in which diploid daughter cells are produced.
 - D** The parent cell contains twice as many chromosomes as each daughter cell.
-

09. 0610_s20_qp_23 Q: 30

Which statement about meiosis is correct?

- A** Meiosis produces diploid cells.
 - B** Meiosis produces genetically identical cells.
 - C** Meiosis produces gametes.
 - D** Meiosis produces cells for growth of tissues.
-

10. 0610_w20_qp_21 Q: 31

What happens during meiosis?

- A** A diploid cell divides to form diploid cells.
 - B** A diploid cell divides to form haploid cells.
 - C** A haploid cell divides to form diploid cells.
 - D** A haploid cell divides to form haploid cells.
-

11. 0610_w20_qp_22 Q: 31

Meiosis is sometimes called 'reduction division'.

What is reduced during meiosis?

- A** Body cells are reduced in size.
 - B** Chromosomes are reduced in number.
 - C** The number of gametes is reduced.
 - D** The rate of cell division is reduced.
-

12. 0610_w20_qp_23 Q: 31

Some features of cell division are listed.

- 1 chromosome number is maintained
- 2 haploid cells are produced
- 3 new cells are genetically different
- 4 results in variation

Which features are involved in meiosis?

- A 1, 2 and 3 only
 - B 1, 2 and 4 only
 - C 2, 3 and 4 only
 - D 2 and 3 only
-

13. 0610_s19_qp_21 Q: 33

What happens as a result of meiosis?

- A Diploid cells are produced.
 - B Diploid and haploid cells are produced.
 - C Genetically identical cells are produced.
 - D Haploid cells are produced.
-

14. 0610_s19_qp_22 Q: 33

The diploid number for mice is 40 chromosomes.

How many chromosomes will be in a mouse cell formed by meiosis?

- A 10
 - B 20
 - C 40
 - D 80
-

15. 0610_w19_qp_23 Q: 30

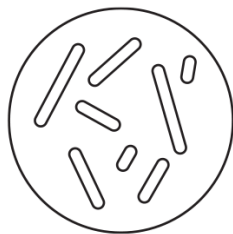
A haploid nucleus is defined as one that contains

- A one chromosome.
 - B one set of unpaired chromosomes.
 - C two chromosomes.
 - D two sets of chromosomes.
-

17.3. MEIOSIS

16. 0610_s18_qp_21 Q: 31

The diagram shows the chromosomes in the nucleus of a body cell in an adult fruit fly.



What are the diploid and haploid number of chromosomes in the fruit fly?

	diploid	haploid
A	4	8
B	8	4
C	8	16
D	16	8

17. 0610_s18_qp_22 Q: 32

Some features of cell division are listed.

- 1 haploid cells are produced
- 2 new cells are genetically identical
- 3 reduction division
- 4 results in variation

Which features would be associated with meiosis?

- A** 1, 2 and 3 **B** 1, 2 and 4 **C** 1, 3 and 4 **D** 2, 3 and 4

18. 0610_s18_qp_23 Q: 32

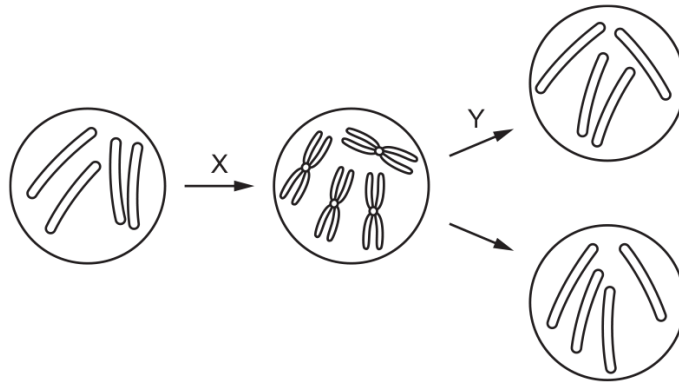
Cell X contains 16 chromosomes. It divides by meiosis.

How many chromosomes do each of the new cells contain?

- A** 4 **B** 8 **C** 16 **D** 32

19. 0610_w18_qp_21 Q: 31

The diagram shows the formation of new diploid cells.



What do arrows X and Y represent?

	X	Y
A	duplication of chromosomes	meiosis
B	duplication of chromosomes	mitosis
C	meiosis	duplication of chromosomes
D	mitosis	duplication of chromosomes

20. 0610_s17_qp_22 Q: 33

Cell division by meiosis of a parent cell with 23 pairs of chromosomes will result in

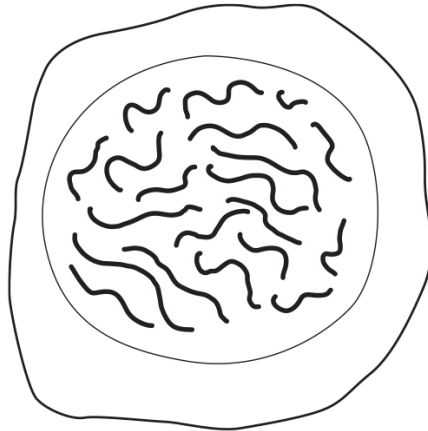
- A** 2 cells, each with 23 pairs of chromosomes.
- B** 2 cells, each with 23 single chromosomes.
- C** 4 cells, each with 23 pairs of chromosomes.
- D** 4 cells, each with 23 single chromosomes.

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17.3. MEIOSIS

21. 0610_p16_qp_20 Q: 29

The diagram shows a cell of an organism formed by reduction division. The nucleus contains 20 chromosomes.



What is the diploid number for this organism?

- A** 10 **B** 20 **C** 40 **D** 46
-

22. 0610_s16_qp_22 Q: 31

When a cell divides, these events occur.

- 1 The DNA inside the cell is duplicated exactly.
- 2 Daughter cells are produced with the same chromosome number as the parent cell.

Which type of division has occurred?

- A** meiosis producing genetically different cells
B meiosis producing genetically identical cells
C mitosis producing genetically different cells
D mitosis producing genetically identical cells
-

23. 0610_w16_qp_22 Q: 33

What happens in meiosis?

	genetically identical cells produced	chromosome number is halved
A	✓	✓
B	✓	✗
C	✗	✓
D	✗	✗

SN	Paper	Q. No.	Answer
01	0610_w16_qp_23	31	B
02	0610_m21_qp_22	34	B
03	0610_s21_qp_21	33	D
04	0610_s21_qp_23	34	D
05	0610_m20_qp_22	34	B
06	0610_p20_qp_20	29	C
07	0610_s20_qp_21	31	B
08	0610_s20_qp_22	31	D
09	0610_s20_qp_23	30	C
10	0610_w20_qp_21	31	B
11	0610_w20_qp_22	31	B
12	0610_w20_qp_23	31	C
13	0610_s19_qp_21	33	D
14	0610_s19_qp_22	33	B
15	0610_w19_qp_23	30	B
16	0610_s18_qp_21	31	B
17	0610_s18_qp_22	32	C
18	0610_s18_qp_23	32	B
19	0610_w18_qp_21	31	B
20	0610_s17_qp_22	33	D
21	0610_p16_qp_20	29	C
22	0610_s16_qp_22	31	D
23	0610_w16_qp_22	33	C



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