

## Mitosis, Meiosis, And Number Of Chromosomes

Organisms differ in the number of chromosomes in their cells. The table below shows the number of chromosomes in the body cells of different organisms.

Use the table to help answer the questions below.

Organism	Chromosome number	Organism	Chromosome number
alligator	32	amoeba	50
cat	32	chimpanzee	48
dog	78	eel	36
fly	12	human	46
lettuce	18	pigeon	80

- How many chromosomes in the body cells of an alligator? \_\_\_\_\_ an amoeba? \_\_\_\_\_ a dog? \_\_\_\_\_ a human? \_\_\_\_\_ a pigeon? \_\_\_\_\_ lettuce? \_\_\_\_\_ a fly? \_\_\_\_\_
- How many chromosomes in the sex cells of a dog? \_\_\_\_\_ a cat? \_\_\_\_\_ a chimpanzee? \_\_\_\_\_
- During Step One of mitosis how many pairs of sister chromatids are in the body cell of a human? \_\_\_\_\_ a cat? \_\_\_\_\_ lettuce? \_\_\_\_\_ an alligator? \_\_\_\_\_
- During Step Three of mitosis how many chromosomes are in the dividing body cell of a human? \_\_\_\_\_ a dog? \_\_\_\_\_ a pigeon? \_\_\_\_\_ an alligator? \_\_\_\_\_ a cat? \_\_\_\_\_ a fly? \_\_\_\_\_
- After mitosis is complete, how many chromosomes are in the resulting body cells of a dog? \_\_\_\_\_ a cat? \_\_\_\_\_ a human? \_\_\_\_\_ a pigeon? \_\_\_\_\_ an amoeba? \_\_\_\_\_
- During Step One of meiosis how many pairs of sister chromatids are present in the forming sex cell of an amoeba? \_\_\_\_\_ an eel? \_\_\_\_\_ lettuce? \_\_\_\_\_
- At the end of Step Three of meiosis how many pairs of sister chromatids are present in each of the forming cells of a human? \_\_\_\_\_ a cat? \_\_\_\_\_ a dog? \_\_\_\_\_ a fly? \_\_\_\_\_
- When meiosis is complete how many chromosomes are in each resulting sex cell of an alligator? \_\_\_\_\_ a human? \_\_\_\_\_ an eel? \_\_\_\_\_
- After fertilization takes place, how many chromosomes are in the fertilized cell of a dog? \_\_\_\_\_ a cat? \_\_\_\_\_ a human? \_\_\_\_\_ an amoeba? \_\_\_\_\_ an alligator? \_\_\_\_\_