

Mendel and Genetics

Section 1-3

1. a, d
2. Genes are carried from parents to their offspring on chromosomes.
3. two; separate, two; four
4. Meiosis is the process by which the number of chromosomes is reduced by half to form sex cell – sperm and egg cells.
5. meiosis
6. false
7. Half the sperm cells will have the T allele and the other half will have the t allele.
8. 23; 46
9. false
10. Genes are lined up in the same order from one end of the chromosome to the other.

Section 1-3

The Cell and Inheritance



Meiosis

Draw two circles.

Put a triangle and a square in one and an “X” and an “O” in the other.

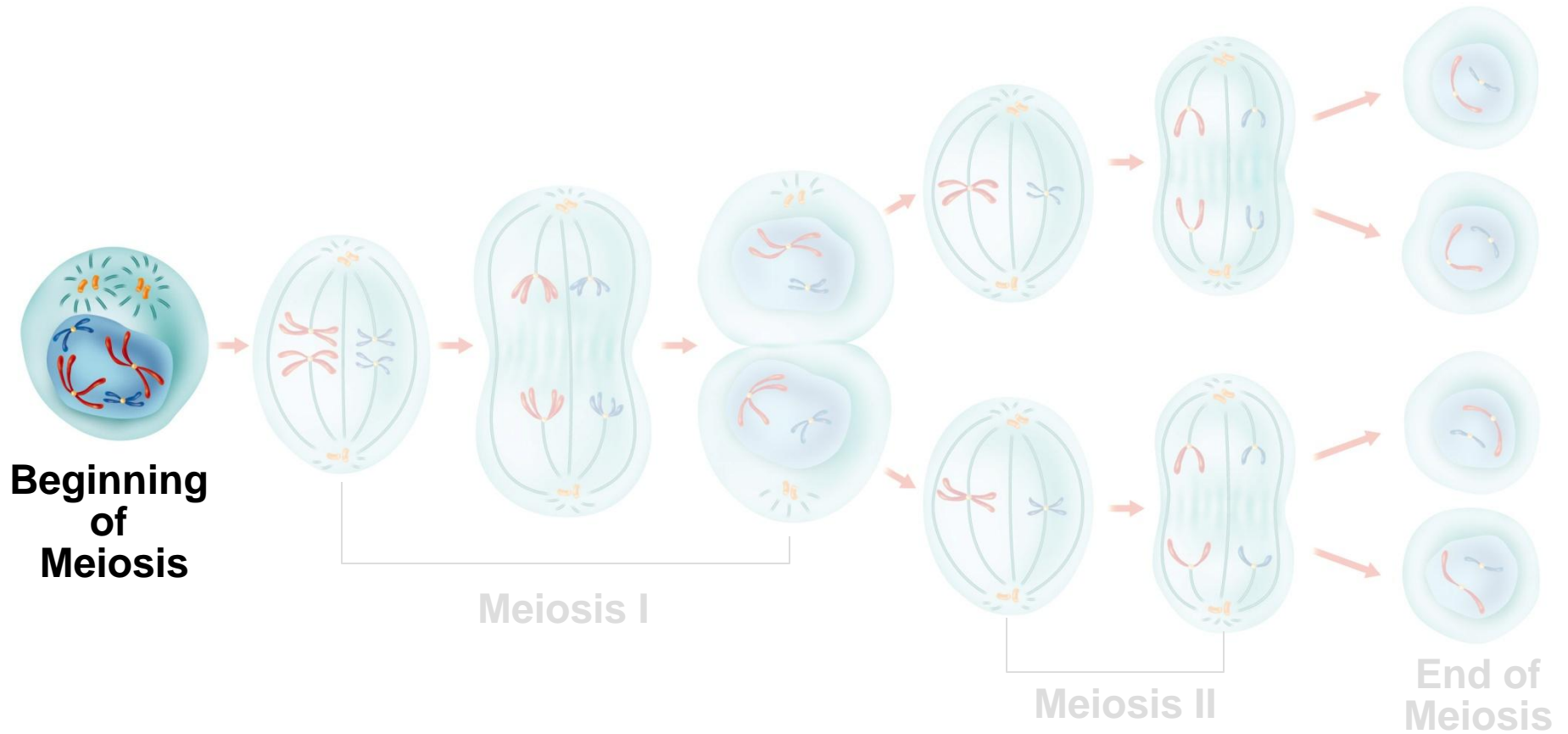
Draw another circle.

If you were to put at least one shape in the new circle from each of the first two circles, what combination of shapes could you possibly have?

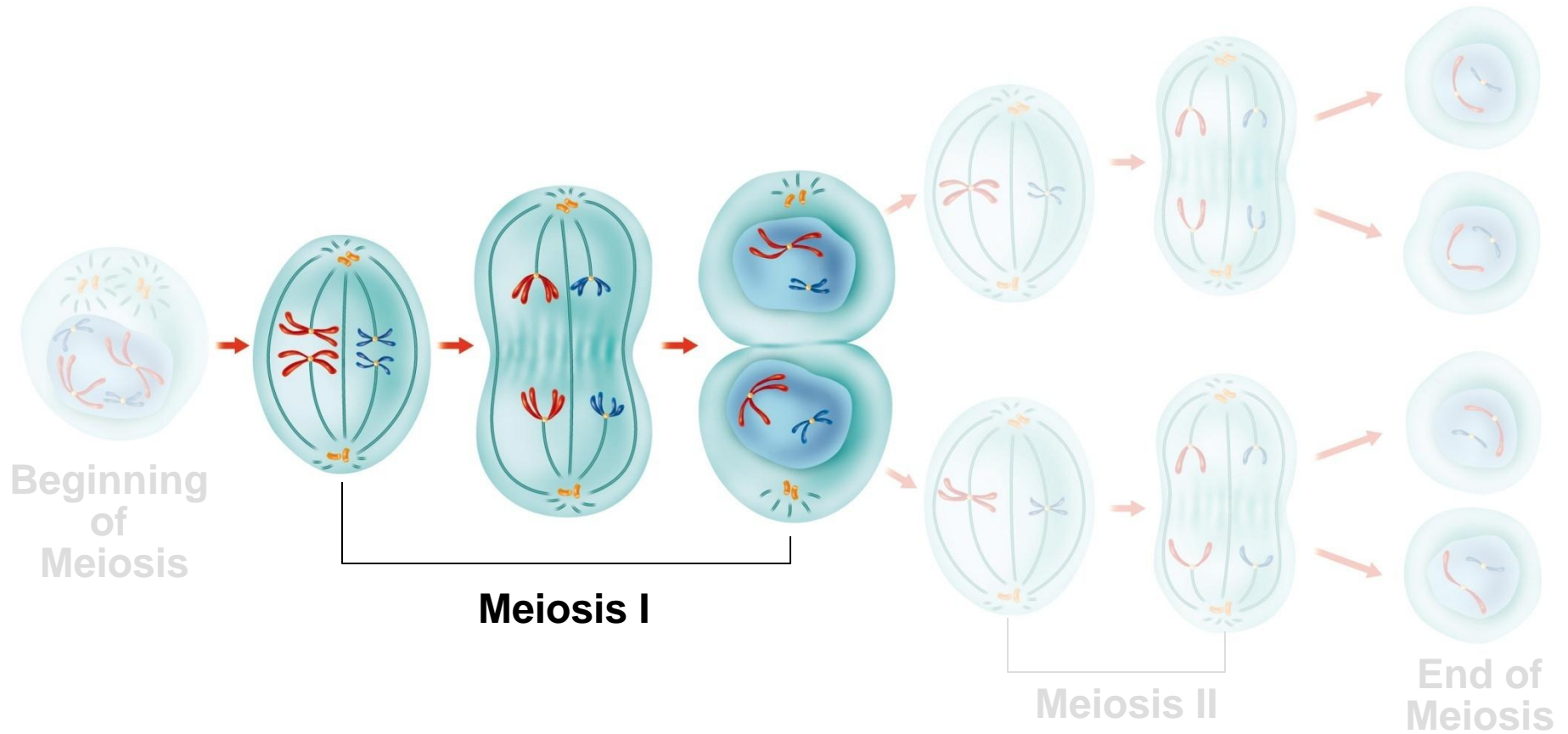
Draw the combinations.



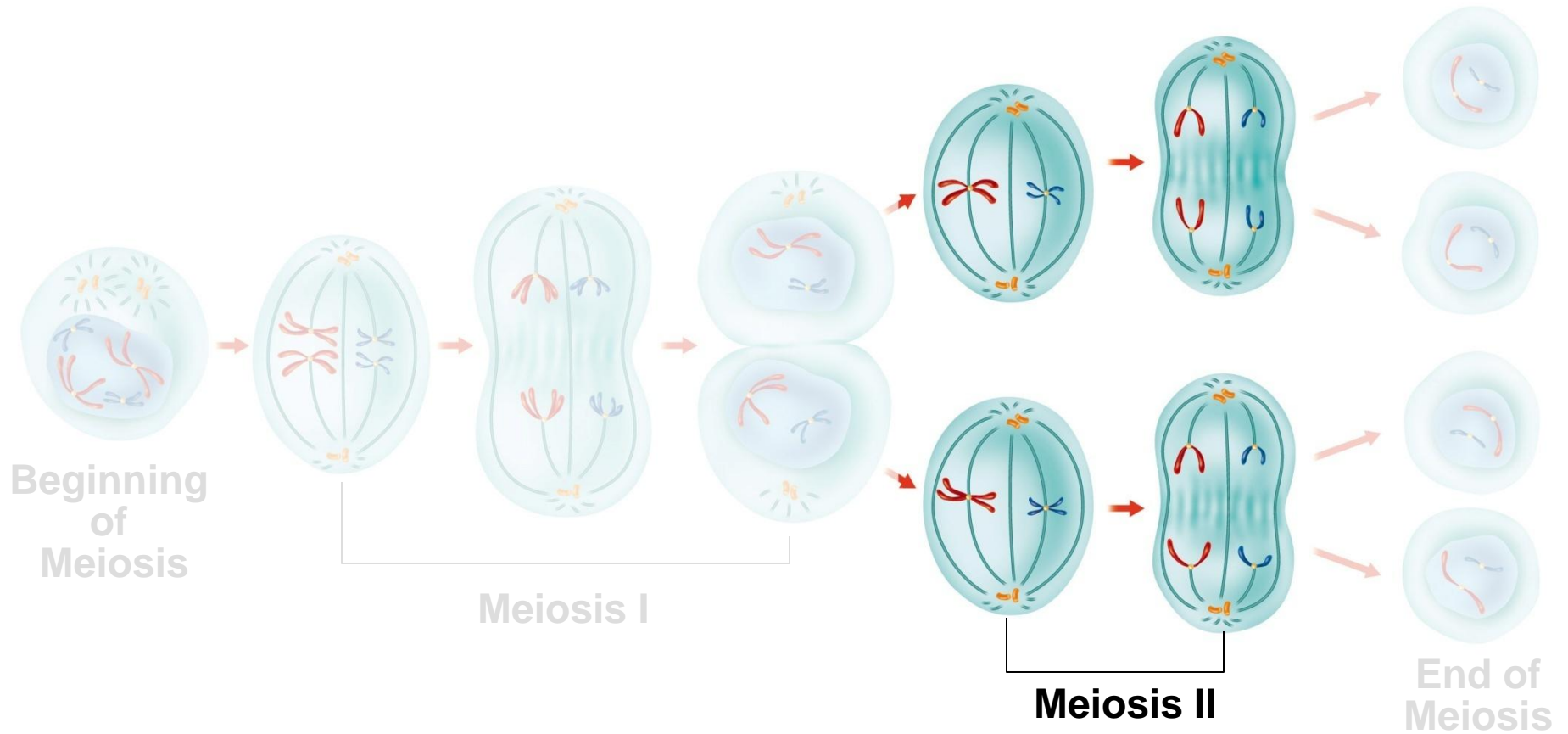
Meiosis



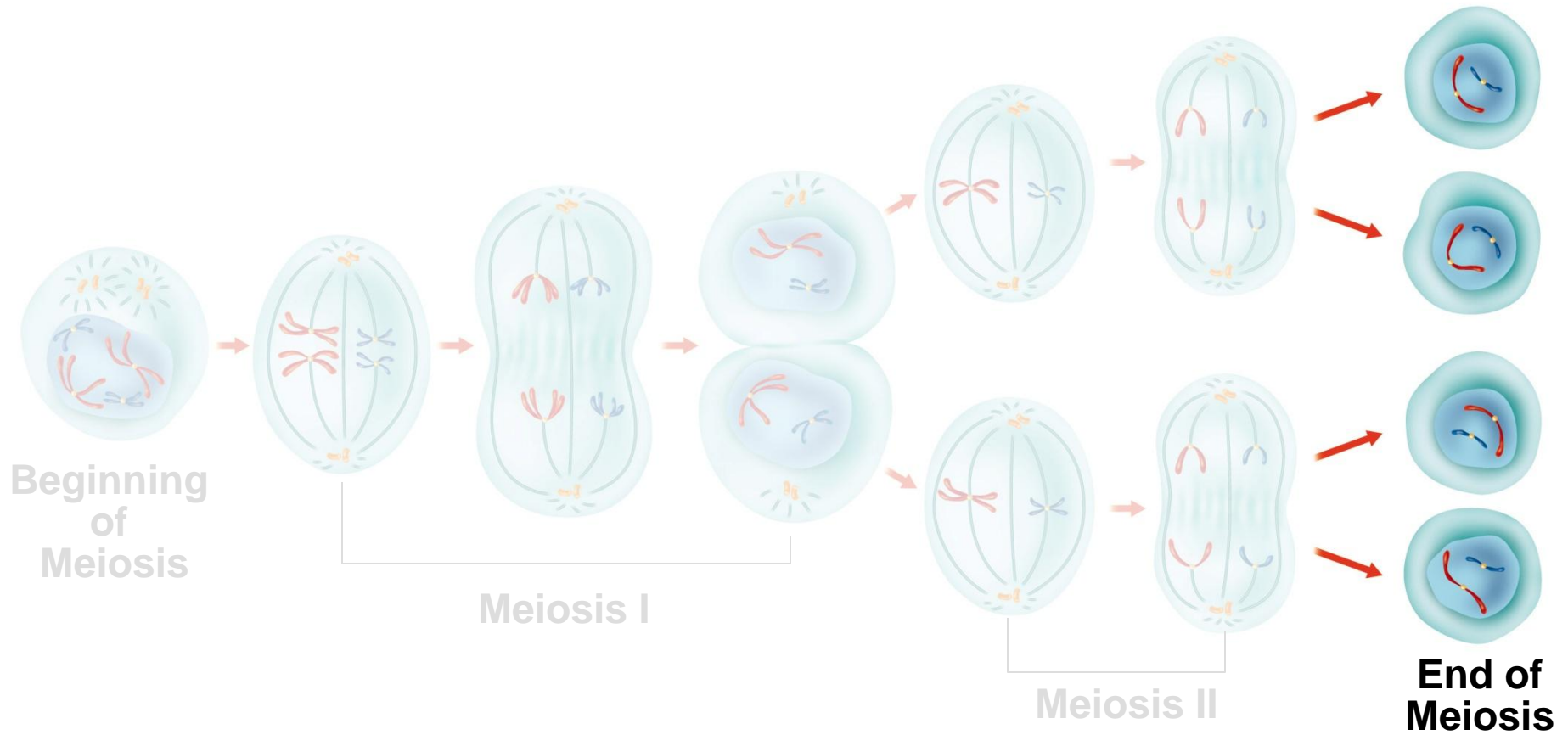
Meiosis



Meiosis



Meiosis



Stages of Meiosis

Stage	Number of Cells	Chromosome Behavior
Beginning	1	Double-stranded chromosomes held by centromeres.
Meiosis I	1 and then 2	Chromosome pairs up Each chromosome still double-stranded.
Meiosis II	2	Double-stranded chromosomes move to center. Two strands of chromosomes separate.
End	4	Each cell has half the chromosomes from beginning.

