SOUTH DAKOTA BIOLOGY · UNIT 2

Genetics and Heredity — Practice Test

South Dakota Biology • 10 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **In a Punnett square the letters along the top and side represent**

- A Offspring phenotypes
- B Parent gametes
- C Enzyme names
- D Chromosome numbers

Understand It with Pulse | Flag a mistake

2 **A person with blood type O has which genotype**

- A IA IA
- B IA i
- C i i
- D IB i

Understand It with Pulse | Flag a mistake

3 **If a homozygous dominant parent is crossed with a homozygous recessive parent all offspring will be**

- A Homozygous dominant
- B Homozygous recessive
- C Heterozygous
- D Half dominant half recessive

Understand It with Pulse | Flag a mistake

4 **Environmental factors can affect phenotype because they can affect how**

A Genes are expressed

B Chromosomes are counted

C Gametes are made

D DNA is copied

Understand It with Pulse | Flag a mistake

5 **A mutation in a body cell that is not a gamete is**

A Always passed to offspring

B Never passed to offspring

C Passed only to sons

D Passed only to daughters

Understand It with Pulse | Flag a mistake

6 **Which scientist is best known for the pea plant experiments that founded modern genetics**

- A Darwin
- B Mendel
- C Pasteur
- D Watson

Understand It with Pulse | Flag a mistake

7 **A karyotype shows the chromosomes of a cell arranged by**

- A Color
- B Age
- C Function
- D Size and shape

Understand It with Pulse | Flag a mistake

8 **A male human normally has which pair of sex chromosomes**

A XX

B XY

C YY

D XO

Understand It with Pulse | Flag a mistake

9 **A cross between two heterozygous parents gives 400 offspring About how many are expected to be homozygous recessive**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **In humans how many autosomes are in a normal body cell**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	B	**5.**	B	**9.**	100
2.	C	**6.**	B	**10.**	44
3.	C	**7.**	D		
4.	A	**8.**	B		

© 2026 Brett Robbins. All Rights Reserved.