

Blood Type Genetics

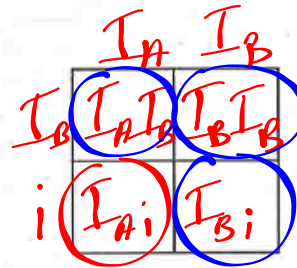
I_A , I_B , and i code for different proteins on the surface of red blood cells. The i allele is recessive. I_A and I_B are dominant to O . I_A and I_B are codominant to each other.

Fill in the table below and then answer the questions that follow

Blood Type (Phenotype)	Genotype
Homozygous for type A	$I_A I_A$
Heterozygous for type A	$I_A i$
Homozygous for type B	$I_B I_B$
Heterozygous for type B	$I_B i$
Type AB	$I_A I_B$
Type O	ii

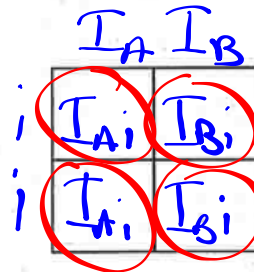
1. Nadine's mom has type AB blood and her dad is heterozygous for type B blood. What is the probability that Nadine has

- a. type A blood 25%
- b. type B blood 50%
- c. type AB blood 25%
- d. type O blood 0%



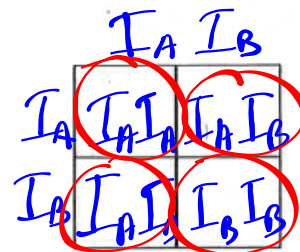
2. Tricia's mom has type AB blood and her dad has type O blood. What is the probability that Tricia has

- a. type A blood 50%
- b. type B blood 50%
- c. type AB blood 0%
- d. type O blood 0%



3. Aasif's mom and dad both have type AB blood. What is the probability that Aasif has

- a. type A blood 25%
- b. type B blood 25%
- c. type AB blood 50%
- d. type O blood 0%



4. Stephen's mom and dad are both heterozygous for type A blood. What is the probability that Stephen has

- a. type A blood 75%
- b. type B blood 0%
- c. type AB blood 0%
- d. type O blood 25%



5. Wendy's mom has type O blood and her dad is homozygous for type A blood. What is the probability that Wendy has

- a. type A blood 100%
- b. type B blood 0%
- c. type AB blood 0%
- d. type O blood 0%



