

### Blood Type Genetics

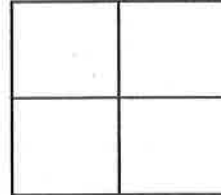
$I_A$ ,  $I_B$ , and  $i$  code for different proteins on the surface of red blood cells. The  $i$  allele is recessive.  $I_A$  and  $I_B$  are dominant to  $O$ .  $I_A$  and  $I_B$  are codominant to each other.

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

Blood Type (Phenotype)	Genotype
Homozygous for type A	
Heterozygous for type A	
Homozygous for type B	
Heterozygous for type B	
Type AB	
Type O	

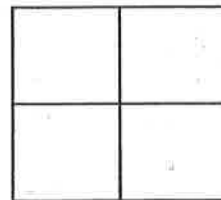
1. Nadine's mom has type AB blood and her dad is heterozygous for type B blood. What is the probability that Nadine has

- a. type A blood \_\_\_\_\_
- b. type B blood \_\_\_\_\_
- c. type AB blood \_\_\_\_\_
- d. type O blood \_\_\_\_\_



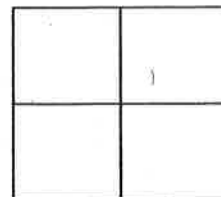
2. Tricia's mom has type AB blood and her dad has type O blood. What is the probability that Tricia has

- a. type A blood \_\_\_\_\_
- b. type B blood \_\_\_\_\_
- c. type AB blood \_\_\_\_\_
- d. type O blood \_\_\_\_\_



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

- a. type A blood \_\_\_\_\_
- b. type B blood \_\_\_\_\_
- c. type AB blood \_\_\_\_\_
- d. type O blood \_\_\_\_\_



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

- a. type A blood \_\_\_\_\_
- b. type B blood \_\_\_\_\_
- c. type AB blood \_\_\_\_\_
- d. type O blood \_\_\_\_\_


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 \_\_\_\_\_
- b. type B blood \_\_\_\_\_
- c. type AB blood \_\_\_\_\_
- d. type O blood \_\_\_\_\_