

# Assignment

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In a diploid angiosperm species, flower colour is regulated by the R gene. RR and Rr genotypes produce red flowers, whereas the rr genotype produces white flowers. If two individual plants are randomly selected from a large segregating population of a genetic cross between RR and rr parents, the probability of both the plants producing red flowers is

**Solution:**

For the parent genes:

	R	R
r	Rr	Rr
r	Rr	Rr

TABLE I  
GENE OF PARENTS.

Hence, we can see that it gives only Rr gene

For the children genes:

	R	r
R	RR	Rr
r	Rr	rr

TABLE II  
GENE OF CHILDREN.

We know that, RR & Rr gives red flowers

Therefore,

$$\Pr(\text{Red flower}) = \frac{3}{4} \quad (1)$$