

Use the following information to answer

In peas, the allele for round seeds (R) is dominant to that for wrinkled seeds (r); the allele for yellow seeds (Y) is dominant to that for green seeds (y). These loci are unlinked. Plants from a true-breeding line with round, green seeds are crossed with plants from a true-breeding line with wrinkled, yellow seeds. These parents constitute the P generation.

1. The genotypes of the P generation are (a) $RRrr$ and $Yyyy$, (b) $RrYy$, (c) $RRYY$ and $rryy$, (d) $RRyy$ and $rrYY$, (e) RR and YY .
2. What are the expected genotypes of the F1 hybrids produced by the described cross? (a) $RRrr$ and $Yyyy$, (b) all $RrYy$, (c) $RRYY$ and $rryy$, (d) $RRyy$ and $rrYY$, (e) RR and YY
3. What kinds of gametes can the F1 individuals produce? (a) RR and YY , (b) Rr and Yy , (c) RR , rr , YY , and yy (d) R , r , Y and y (e) RY , Ry , rY , and ry