

Parent Generation

P frequency A 0.6
 q frequency B 0.4

=SUM(1-cell w p freq.)

gametes	zygote		genotypes		
	male	female	AA	AB	BB
B	B	BB	0	0	1
B	B	BB	0	0	1
A	A	AA	1	0	0
B	A	BA	0	1	0
B	A	BA	0	1	0
A	B	AB	0	1	0
A	A	AA	1	0	0
B	A	BA	0	1	0
B	A	BA	0	1	0
B	A	BA	0	1	0
A	A	AA	1	0	0
B	A	BA	0	1	0
A	A	AA	1	0	0
A	A	AA	1	0	0
A	A	AA	1	0	0
A	B	AB	0	1	0
A	B	AB	0	1	0
A	B	AB	0	1	0
B	B	BB	0	0	1
A	A	AA	1	0	0

=IF(RAND() <= D\$2, "A", "B")
 where cell D2 contains p frequency
 (if this cell is entered incorrectly, gametes will be all one letter, i.e. B)

=IF(zygote cell = "BB", 1, 0)

CONCATENATE(cell ♂ gamete, cell ♀ gamete)

alleles A B number 7 11 3
 =SUM(2*cell AA / total + cell AB / total)
 0.59524 0.405 freq. 0.33333 0.52381 0.14286
 =SUM(first: last cell / cell)

=SUM(cell A / total / (cell A / total + cell B / total))
 =SUM(cell w / total / (all 3 cell totals added))