

Q. A pea plant having violet colour flower at axile position are cross with white colour flower at terminal position what is the phenotypic & genotypic ratio of same

	♂		♀
Phenotype :	violet colour, axile position flower	x	white colour, terminal position flower
	↓		↓
Genotype :	VVAA		vvaa

Gametes :	VA	Va
F ₁ :	VvAa	

Hybrid violet colour flower at
axile position

	hybrid (♂)		hybrid (♀)
Selfing in F ₁ :	Violet colour, axile position flower	x	white colour, terminal position flower
	↓		↓
Genotype :	VvAa		VvAa
	↓		↓
Gametes :	VA, Va, vA, va		VA, Va, vA, va

F₂ :-

♀ \ ♂	VA	Va	vA	va
VA	VVAA	VVAa	VvAA	VvAa
Va	VVAa	VVaa	VvAa	Vvaa
vA	VvAA	VvAa	vvAA	vvAa
va	VvAa	Vvaa	vvAa	vvaa

phenotypic ratio :- 9 : 3 : 3 : 1

Genotypic ratio :- 1 : 1 : 2 : 2 : 4 : 1 : 2 : 1 : 2 : 1