functional architecture associated with the shoot meristems.

- **Homeobox domain genes-** structure is knotted. In a mutated form, the knotted ene is expressed constitutively and is thus expressed in high concentrations. So what is the impact on higher level protein on the phenotype of the plant? Will constitutively be expressed into the shoot meristem.

Question for the test:

What happens when you add colchicine?

a) cells become triploid
b) disrupts microtubule function
c) disrupts actin function
d) inhibits karyokinesis (nuclei division/sep in a dividing cell)
e) a and b
f) b and c
g) b and d —> answer
h) c and d

***might see something about with tunica or corpus or quiescent zone in the exam.**

- Refer to figure 17-8 for location of leaves from the shoot. The inner leaves are the youngest and the outer is the oldest. Pattern is contingent on the ability of the leaf to capture as much sunlight as possible.
- The leaf primordia are going to be the newest one in the middle, the others spread around- can see a pattern that arises as a helical form.
- Phyllotaxy results in a series of numbers that result in the Fibonacci series.
- Shoot meristem is where all the activity is going on. Meristematic region of the monocotyledons plant is down near the soil where cell division occurs and thats why the bad of grass keeps on growing even though herbivores eat it.
- Each of the branches in a monocot come from an inner primordia. Each one of the inner leaves is developing from the underside. All the cell division is occurring in the soil. Monocotyledonous grass species occur in particular ecological niches like grasslands.