Incomplete and codominance practice #2

In a certain cactus, prickly spines can be two pronged or one pronged. If a true breeding one-pronged cactus is crossed with a true breeding two-pronged cactus, the F1 generation has a mixture of spines, some are two pronged, some are one-pronged.

a. Is this an example of codominance or incomplete dominance?

b. Show the F2 generation (a cross between the two F1's) What are the phenotypes and in what proportion? (Key O =one pronged, T= two pronged)

Phenotypes

One pronged %

Two pronged %

One and two pronged %

In the same cactus, if you crossed a plant that has red flowers to one that has yellow flowers, you produce a cactus that has orange flowers. (Key R=red and Y=yellow)

a. Is this codominance or incomplete dominance?
b. Show the cross of an orange flowered plant to a red flowered plant.

Phenotypes:

Red flowers % orange flowers %

Yellow flowers %

A cross between a black cat and a tan cat produces a tabby pattern (black and tan fur together) (Key B=black T=tan)

a. What pattern of inheritance does this illustrate?
b. What percentage of kittens would have tan fur if a tabby cat is crossed with a black cat?

Tan fur= %

A cross between female blue blahblah bird and a male white blahblah bird produced offspring that are silver. (key B=Blue W=white)

a. What pattern of inheritance does this illustrate?
b. What are the genotypes of the parents in the original cross?
   Mom Dad
c. What is the genotype of the silver bird?
d. What would be the phenotypic ratios of the offspring produced by two silver birds?

Phenotypes:

Blue % White % Silver %