

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.

- Is this an example of codominance or incomplete dominance?
- 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)

- Is this codominance or incomplete dominance?
- 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)

- What pattern of inheritance does this illustrate?
- 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)

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

Phenotypes:

Blue % White % Silver %