

## 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)

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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.

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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?

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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?

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Phenotypes:

Blue            %    White            %    Silver            %