

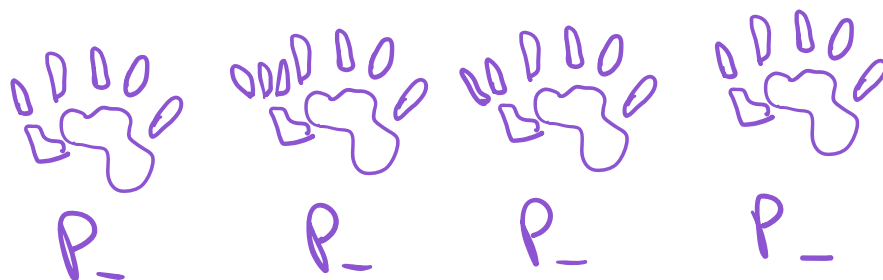
Incomplete Expressivity

- phenotype: polydactyly (in cats)
- genotype: P $\leftarrow$ presence of ^{at least} one dominant polydactyly allele

$\bar{P}\bar{P}$ genotype
 phenotype

Diff #s
of extra toes
but all
have
extra
toes

population of interest:



All individuals who have a dominant allele ' P ' express polydactyly. Not

all individuals express it to the same degree (diff #s of toes)

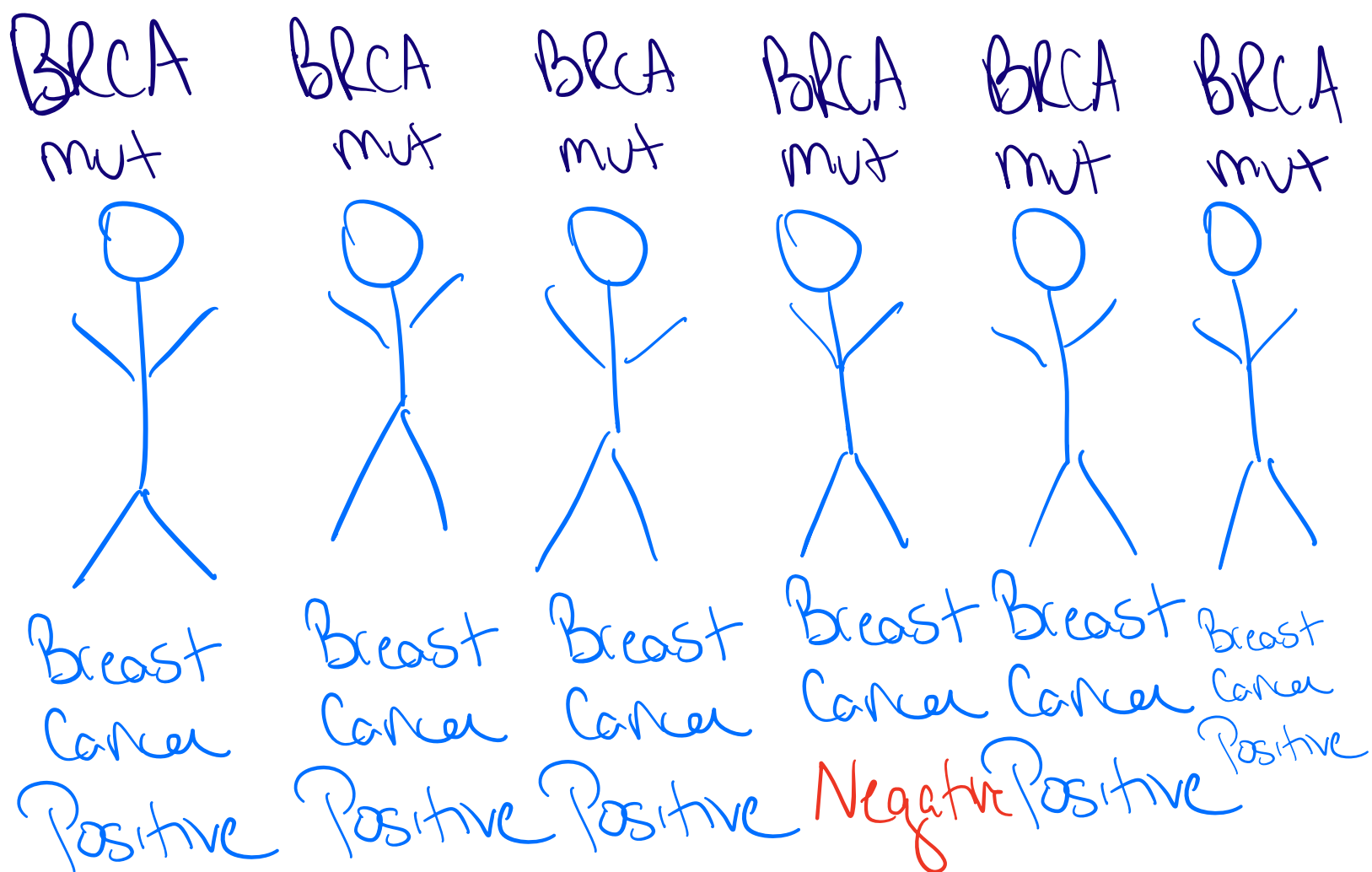
Complete Expressivity would be represented by all of the cats w/ the dominant allele developing the same # of extra toes

Incomplete Penetrance:

phenotype: Breast cancer

genotype: BRCA1 mutation

population



The one person w/ the BRCA1 mutation who never develops breast cancer represents incomplete penetrance.

Complete penetrance would be represented by every indiv. w/ the mutation developing breast cancer