

Inheritance in armadillos:

hairy snout: hh is hairy; HH, Hh are smooth  
 droopy ears: dd is droopy; DD, Dd are straight  
 red eyes: rr are red; RR, Rr are brown  
 banded body: bb is banded; BB, Bb are unbanded  
 warty paws: WW, Ww are warty; ww are smooth

You cross a homozygous recessive strain to a homozygous dominant strain to make a heterozygous  $F_1$ .

$P_0$  h/h; d/d; r/r; b/b; w/w ♂ x H/H; D/D; R/R; B/B; W/W ♀

You then make a cross between  $F_1$  males and females.

$F_1$  H/h; D/d; R/r; B/b; W/w ♂ x H/h; D/d; R/r; B/b; Ww ♀

in the  $F_2$ , what is the probability of offspring with  
 hairy snouts straight ears brown eyes banded bodies warty paws ??

$F_1$  H/h; D/d; R/r; B/b; W/w ♂ x H/h; D/d; R/r; B/b; W/w ♀

in  $F_2$ , what is the probability of getting offspring with  
 hairy snouts straight ears brown eyes banded bodies warty paws ??

pr (h/h D/- R/- b/b W/-) = ??

$$= \text{pr}(h/h) \times \text{pr}(D/-) \times \text{pr}(R/-) \times \text{pr}(b/b) \times \text{pr}(W/-)$$

$$= \frac{1}{4} \times \frac{3}{4} \times \frac{3}{4} \times \frac{1}{4} \times \frac{3}{4}$$

$$= 27/1024$$

$$\sim 3\%$$