

Es # 1

• $P_{III 1}(AA) =$

$II 1 \times II 2$

$AA \times AA \rightarrow AA$

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

$AA \times Ae \rightarrow Ae$

$1 \times \frac{2}{3} \times \frac{1}{2} = \frac{1}{3}$

$P = \frac{1}{3} + \frac{1}{3} = \frac{2}{3}$

$P_{III (2)} Ae = \frac{1}{3}$

$III.1 \times III 2 \rightarrow Aa$

$AA \times Ae \rightarrow Ae$

$\frac{2}{3} \times 1 \times \frac{1}{2} = \frac{1}{3}$

$Aa \times Ae \rightarrow Ae$

$\frac{1}{3} \times 1 \times \frac{1}{2} = \frac{1}{6}$

$P = \frac{1}{3} + \frac{1}{6} = \frac{2+1}{6} = \frac{3}{6} = \frac{1}{2}$

$P = \left(\frac{1}{2}\right)^4$

ES #2

$$\text{♀} \frac{x + y}{+ 2 +} \times \frac{+++}{\longrightarrow}$$

Scambi I reg \rightarrow $d_{x-2} = \frac{125 + 115 + 2 + 2}{1011} =$
 + dopp

$$= \frac{244}{1011} = 0.24 = 240\mu$$

Scambi II reg \rightarrow $d_{z-y} = \frac{100 + 98 + 2 + 2}{1011} = \frac{203}{1011} = 0.20 = 20\mu$
 + dopp

$$cc = \frac{4/1011}{024 \times 020} = \frac{0,0039}{0.048} = 0.08$$

$$I = 1 - 0.08 = 0.92$$

ES #3 ebc x +++

$\overline{e}bc$	$\overline{e}++$	$\overline{e}b+$	$\overline{e}bc$	$e+c$
$e\overline{b}c$	$+++$	$+b+$	$+b+$	$a+c$
$+++$	$e\overline{b}c$	$e+c$	$o+c$	$+b+$
$+++$	$+bc$	$++c$	$+++$	$+b+$
49	50	46	52	73

	PD	NPD	T
ab	74	73	50+46+52 = 148
bc	79+50 = 129	46+73 = 119	52
ac	79+52+ 75 = 204		50+46 = = 96

gemiddeld e e c

$$d_{e-c} = \frac{0 + 1/2(96)}{300} = 16 \text{ mm}$$

ES# 4

$$60/310 = 0.193 = \text{coe}$$

$$1 - 0.193 = 0.807 = \text{coe}^+$$

$$\overset{\text{coe}}{\text{♀}} \times \overset{\text{coe}}{\text{♂}} = (0.193)^2 = 3.7\%$$