

Biometry - Clex 7.5 - solutions

Expected frequencies under independence are in the table on the right.

	Blue	Gold	Red	
Dead	7	9	24	40
Alive	129	46	215	390
	136	55	239	430

	Blue	Gold	Red	
Dead	12.7	5.1	22.2	40
Alive	123.3	49.9	216.8	390
	136	55	239	430

$$\chi^2 = \frac{(7 - 12.7)^2}{12.7} + \dots + \frac{(215 - 216.8)^2}{216.8} = 6.27$$

Degrees of freedom $(2-1)(3-1) = 2$

$$p\text{-value} = 0.0435 < 0.05$$

Fatality rate and uniform colour are dependent.