

What about getting four heads and 1 Tail

H H H H H

→ 5 ways to get 4 H and 1 T

T H H H H

H T H H H

→ 10 ways to get 2 H and 3 T

H H T H H

H H H T H

→ 10 ways to get 3 H and 2 T

H H H H T

→ 5 ways to get 1 H and 4 T

P Value = Probability of getting 4 H and 1 T $\rightarrow \frac{5}{32}$

+ Probability of getting 4 T and 1 H $\rightarrow \frac{5}{32}$

+ Probability of 5 H + Probability of 5 T $\rightarrow \frac{1}{32} + \frac{1}{32}$

in two sided no other distribution gives better result

$$\frac{5}{32} + \frac{5}{32} + \frac{2}{32} = 0.375$$

My Coin is not special.

↳ one sided P Value:- (dangerous)

in some condition it cannot tell that My drug doing something unusual.

Video 8: Confidence intervals

Ex: we want to know the mean weight of female mice

- ① we choose random 12 Female Mice to weight ① Choose random 12 weights
- ② Calculate mean of the random sample.
- ③ Repeat ① and ② until we calculated a lot of Random means

95% Percent of interval:- Confidence

معنى 95% من جميع means افرقا

Why they are useful:- Confidence of interval = 95% ان 5% من الـ means من 95% خارج

P value < 0.05

النتيجة
⑤