

10/29/18 Be able to use probability to predict.

Sample	# tagged fish	# total fish	Estimate of total population
1	1	65	$\frac{1}{65} = \frac{36}{x}$ $x = 2340$ fish
2	1	71	$\frac{1}{71} = \frac{36}{x}$ $x = 2556$ fish
3	1	60	$\frac{1}{60} = \frac{36}{x}$ $x = 2160$ fish
4	1	68	$\frac{1}{68} = \frac{36}{x}$ $x = 2448$ fish
5	1	84	$\frac{1}{84} = \frac{36}{x}$ $x = 3024$ fish

$$\text{Average} = \frac{3024 + 2448 + 2160 + 2556 + 2340}{5}$$

$$\text{Average} = 2506 \text{ fish}$$

Park Rangers tag 30 wild mustangs.

Month 1	8 tagged	$\frac{8}{100} = \frac{30}{x}$
	100 total	$x = 375$

Month 2	10 tagged	$\frac{10}{150} = \frac{30}{x}$
	150 total	$x = 450$

Month 3	15 tagged	$\frac{15}{200} = \frac{30}{x}$
	200 total	$x = 400$

Average = 408 horses