

Animal Eye Project Team Record Sheet

TEAM MEMBERS:

1. _____ 3. _____

2. _____ 4. _____

1. Divide your team of 4 into pairs of 2. Each pair gets 5 animal eyes in a bowl. You are going to toss the eyes, and a success is that the eye lands facing up. Our goal is to estimate the probability of a success.
2. One person in each pair tosses the eyes repeatedly until you have done 100 tosses. (You can toss them 5 at a time, 20 times.) Your partner records the number of times they land "eyes up." Enter your data in the table below. Then switch roles. Each team member should record the results in the table below.
3. Carry out the calculations as instructed in the table below, resulting in a 95% confidence interval for the probability that the eye lands looking at you.
4. Draw your confidence interval on the grid on the overhead using the pen color you are instructed to use for the individual intervals.
5. Calculate the confidence interval for the team, as shown in the last row of the table.
6. Draw the team confidence interval on the overhead.

Team Member:	X = # with eye up (out of 100 tosses)	Proportion with eye up = $\hat{p} = \frac{X}{100}$	S.D. = $\sqrt{\frac{\hat{p}(1-\hat{p})}{100}}$	95% C.I. $\hat{p} \pm 2(\text{S.D.})$
1				
2				
3				
4				
Team Results:	X = Number with eye up= _____ Total tosses n = _____	\hat{p} = proportion with eye up $= \frac{X}{n} =$ _____	S.D. = $\sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$ = _____	95% C.I. $\hat{p} \pm 2(\text{S.D.})$ which is: _____ to _____