

# TOO MANY BOYS?



## TASK A

1. If it is equally likely that a new born child is a boy or girl what is the probability of a baby being born a boy?
2. If a couple already have 3 boys does this increase the likelihood of them having a girl if they have a fourth child?
3. Using your result from question 1, if a couple plan to have 2 children what is the probability they will have 2 boys?
4. Using your result from question 1, if a couple plan to have 2 children is it more likely, less likely or the same probability that they will have 2 boys or a boy and a girl?
5. If a couple plan to have 3 children what are the probabilities that they will have:
  - a) 3 boys?
  - b) 2 boys and 1 girl?
  - c) 1 boy and 2 girls?
  - d) 3 girls?
6. Work out the probability of a family having 8 children who are all boys?
7. Which event is more likely 3 boys in a family of 3 children or 1 girls and 3 boys in a family of 4 children?

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## TASK B

Use the data below, from *CensusAtSchool*, to answer questions 8, 9 and 10.

No. of children in family	Total number of families	No of families with 0 Boys	No of families with 1 Boy	No of families with 2 Boys	No of families with 3 Boys	No of families with 4 Boys	No of families with 5 Boys
1	9962	5250	4712				
2	27782	6688	14814	6280			
3	14264	1788	5266	5275	1935		
4	4765	332	1118	1760	1172	383	
5	1436	59	236	422	422	227	70

8. If a couple plan to have 2 children what is the probability of having 2 boys?
9. If a couple plan to have 3 children what are the probabilities that they will have:
- a) 3 boys?
  - b) 2 boys and 1 girl?
  - c) 1 boy and 2 girls?
  - d) 3 girls?

Compare these answers to those in Task A and comment.

## TASK C

10. Can you show this in an interesting or pictorial way?

## TASK D

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11. See [www.geohive.com/earth/pop\\_gender.aspx](http://www.geohive.com/earth/pop_gender.aspx) for the number of male and females in countries of the world. Comment on anything you think interesting about these figures.