



## Where have all the Girls gone?

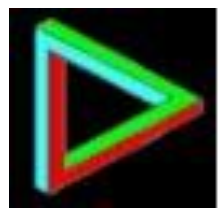


An exercise involving ratio and the disturbing increase in sex selection. The data for this exercise is from the New Internationalist magazine, October 2013. The lead article is here. <http://newint.org/features/2013/10/01/girls-not-allowed-keynote/>

To carry out this exercise you will need a basic understanding of ratio, decimals and percentages.

### **The ratio of boys to girls.**

You might expect the normal ratio of boy births to girl births to be 1:1. In fact the biological norm is 105:100. This means that for every 105 boy babies born there are only 100 girl babies. What percentage of babies born are normally boys? (Round your answer to one decimal place)



# Maths with Graham

Basic Maths made easy!

What percentage are girls? (round to 1 decimal place)

Slightly more boy babies are born because boys are more likely to die in the first few years of life. Baby boys are 20% more likely to die than girls according to the biological norm. In some countries where gender discrimination is extreme many more under 5 girls are dying than is natural.

If a country has a boy:girl ratio of 105:100 and 61,500 babies are born, how many would you expect to be boys and how many would you expect to be girls?

Boys

Girls

## Missing girls

The New Internationalist discovered that in some parts of central China and north west India the ratio changes dramatically. In some areas the ratio was 150:100.

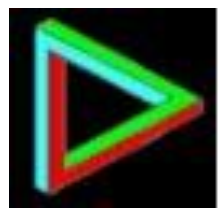
What percentage of babies are boys in these areas?

What percentage are girls?

If 61,500 babies are born in an area with a 150:100 boy:girl ratio, how many boys and girls would you expect?

Boys

Girls



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In Pakistan the ratio of boys born to girls is 109.9:100

What percentage of babies are boys in Pakistan? (Round your answer to 1 decimal place.)

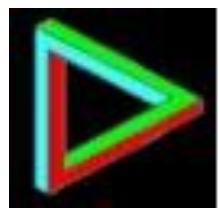
In Hong Kong the boy:girl ratio is 116.2:100

What percentage of babies born in Hong Kong are boys?

Latest UN estimates indicate there are 117 million missing females, most of them from China and India. Write 117 million as a number.

Three quarters of girls under 5 that are missing are due to pre-birth sex selection. (Aborting the foetus when it is discovered to be a girl). What is  $\frac{3}{4}$  of 117 million?

One quarter of girls that are missing are the result of excess female deaths in childhood by neglect or infanticide. What is  $\frac{1}{4}$  of 117 million?



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The excess under 5 female deaths per year (2005-10)

India	261,000
China	99,500
Pakistan	23,200
Afghanistan	14,200
Bangladesh	13,800
Nepal	4,000
Total	

Fill in the missing total in the table.

Use graph paper to draw a graph of this data.

What effects will this have?

24 million Chinese men will not be able to find wives by 2020.

Write 24 million as a number.

Human trafficking is on the increase. 90% of human trafficking victims in China are women and children, mostly from poor rural provinces, trafficked for sexual exploitation. Human trafficking generates \$7 billion a year in China.

Write \$7 billion in figures.

To find out more about this issue read the New Internationalist October 2013.