

## Maths Ninjas Set 6 (Doubling and Halving)

### The Maths Relevance Explained

This set is to ensure your child can double and halve small numbers rapidly, so it is closely related to the 2x table. From the previous number bond Maths Ninjas, your child should know all of these already; it is just a case of linking those known facts with the vocabulary of doubling and halving.

They are best learned a few at a time, but remember that your child needs to be able to use each fact however it is disguised! Also knowledge of doubles can help greatly with near doubles.

eg. Knowing  $7 + 7 = 14$  means double 7 is 14, half of 14 is 7.

It also helps with  $7 + 8 = 15$  because it's one more than double 7, or one less than double 8.

Instant recall of doubles and halves is essential for accurate and rapid calculation, both mentally and written.

eg. It is the same as the 2x table. The 4x table can be worked out with double, double again.

Similarly, halving is dividing by two. Quartering is halve and halve again.

This knowledge can be extended to doubling and halving of multiples of 10, 100 or 1000. If you know that  $6 + 6 = 12$ , you can easily extend it to know that  $60 + 60 = 120$ , or  $600 + 600 = 1200$ .

With secure, instant recall of number bonds (addition and subtraction), your child will feel much more confident and will be much more accurate doing both mental and written calculations.

### How to Help Your Child to Learn these Number Bonds

- Learn one of the doubles on the first day, eg. double 5 = 10, half of 10 is 5. Check recall at random times during the day, eg. "How many do you get if you double 5?". It takes only a couple of seconds each time. On the second day, add in a second fact, eg double 6 is 12, half of 12 = 6. Check recall of both facts at random times during the day. After 10 days, your child will know all the doubles and halves up to double 10.
- Use doubles and halves in real life situations too. You could do some cooking with your child where you double or halve the quantities in the printed recipe.
- Once these new facts are known, try a revision game to reinforce them. Use one 0 to 9 dice\*, or make a 0 – 10 spinner. Play a board game with your child that usually needs two dice. On your turn roll the one 0 – 9 dice, double your score before you move. If you also say the related halving fact correctly, you can move an extra space.  
eg. If you rolled an 8, you would say, "Double 8 is 16," and then move 16 spaces. If you also said, "Half of 16 is 8", you could move one bonus space.  
The parent should make a few deliberate mistakes (saying incorrect doubles/halves) for the child to spot. It usually helps the game along if you don't seem too perfect!

\*A mixed set of dice, very useful for playing games to revise number bonds, can be bought for about £3 from Amazon