# A free download for ElevenPlusExams.co.uk <br> Mathematical Reasoning 

Here is a typical maths reasoning question:
What is the number when 8 is 2 smaller than half this number?

As you read these questions you must stop at the word 'than'. Draw a line through the question at this point - it really will help you. Now split the question into 2 parts like this:

| 8 is 2 smaller than | half this number? |  |
| :---: | :---: | :---: |
| Part 1 <br> 8 is 2 smaller than... <br> answer $=10$ | Part 2 <br> So 10 is half this number 10 is half of 20 | So the answer is 20 |

Other examples for you to look at:

1. What is the number when:

14 is 6 larger than twice this number
14 is 6 larger than/twice this number
8/4

Answer: 4
2. What is the number when:

15 is 2 more than half this number

15 is 2 more than/half this number
13/26

$\longrightarrow$| I say to myself, 8 is twice |
| :--- |
| this number, so the number |
| must be 4 |

I say to myself, 13 is half this number, so the number must be 26

Answer: 26
3. 4 is 8 times smaller than this number:

4 is 8 times smaller than/this number:
Answer: 32
4. 10 is 2 times larger than this number:

10 is 2 times larger than/this number:
Answer: 5

I say to myself,
this number must be 8 times bigger than 4, so I multiply $4 \times 8$.

I say to myself, this means this number must be 2 times smaller so here we divide 10 by 2 .

