How to do Long Multiplication.

Question: 34 x 56

1. Set it out like this:

 34

 x56

1. Start with lowest place value of the top number. Multiply with the lowest place value of the bottom number:

 34 4 x 6 = 24

 x56 As 24 has TENS in it we carry the tens (2)

 24

3) Now multiply the 4 by the next place value of the bottom number:

 34 4 x 5 = 20

 x56 Don’t forget to add the 2 that you carried! 20+2=22

 224

4) Now we multiply the next place value on the top number: 30 - it’s not

 34 30 x 6 = 180

 x56 To make this easier: do 3 x 6 and then x by 10

 224 (because 30 is 3 x 10 so 30 x 6 can be 3 x 10 x 6, which you can do in any order)

 180

5) Now we multiply the 30 by the next highest digit:

 34 3 x 5 = 15 (NB: This is actually 30 x 50 = 1500)

 x56 Don’t forget to add your carry! 15 + 1 = 16

 224

 1680

6) Now add the two numbers:

 34

 x56

 224

 1680

 1904 Answer: 1904. This method works with any amount of digits!