Vedic Maths tricks

Introduction to Vedic maths

Learning to perform fast mental math's calculation will help you immensely irrespective of which field of life you deal with. Knowing these mental maths tricks (Vedic maths) will give you a positive edge over the others.

Whether you are a student, aspiring engineer, statistician, scientist, school teacher or anyone else dealing with numbers, learning this quick mental tricks and techniques (popularly known as Vedic maths techniques is always going to benefit you.

Vedic Maths Tricks

Let's see some techniques which can benefit you immensely

1) **Multiplication of any two-digit number by 11**
let say you want to multiply 52*11. This can be calculated in less than 1 second but if you want to do it traditionally, it will take you around 5-6 seconds.
So let see how using a simple mental math's trick, this calculation can be done in a matter of seconds...

To multiply 52 and 11,imagine there is a space between 52
52*11= 5_2 (Put an imaginary space in between)
Just add 5 and 2 and put the result in the imaginary space
So, 52 * 11 =572 (which is your answer)
Some more examples:
1) 35 * 11 = 3 (3+5) 5 = 385
2) 81 * 11 = 8 (8+1) 1 = 891
3) 72 * 11 = 7 (7+2) 2 = 792 etc..
With just a little bit of practice you can easily perform these simple mental maths tricks in the blink of an eye.

2) **Divisibility of any number by 3 or 9**
Example
Is 456138 divisible by 9?
To test whether a certain large number is divisible by 9 or not,just add all the digits of the number and if the result is divisible by 9, then you can say that the entire large number will be divisible by 9 too'.

4+5+6+1+3+8=27

Now since 27 is divisible by 9 so 456138 will be divisible by 9 too.
Similarly it is true for 3

it only takes 2 seconds for you to determine the answer. But if you go by the traditional way then it will take you 10 seconds. So, you can see the difference. Those 8 extra seconds you win, you can spend on other question

3) Multiply any large number by 12 mentally in seconds

To multiply any number by 12 just double last digit and thereafter double each digit and add it to its neighbor
For example 21314 * 12 = 255768
Lets break it into simple steps:
Step 1: 021314 * 12 = _____8 (Double of Last Digit 4= 8)
Step 2: 021314 * 12 = ____68 (Now Double 1= 2, and add it to 4, 2+4=6)
Step 3: 021314 * 12= ___768 (Now Double 3=6, and add it to 1, 6+1=7)
Step 4: 021314 * 12= __5768 (Now Double 1=2, and add it to 3, 2+3=5)
Step 5: 021314 * 12= _55768 (Now Double 2=4, and add it to 1, 4+1=5)
Step 6: 021314 * 12= 255768 (Now Double 0=0, and add it to 2, 0+2=2)
So your final answer of **21314 * 12 = 255768**

4) **Calculating Square of numbers quickly...**
Trick 1) Lets calculate the square of 54
So (54) ^2 = 5^2 +4 -- 4^2 = 25 +4 ----16 =29-------16= 2916
Similarly (55) ^2 = 5^2 +5 --5^2=25+5------25=30---------25= 3025
Similarly (56) ^2 = 5^2 + 6--6^2=25+6------36= 31--------36= 3136 etc..
Similarly try out squares of 57,58 etc.

Trick 2) 35 × 35
Multiply the last digits of both the numbers; thus ___ 5 × 5 = 25
now add 1 to 3 thus 3 + 1 = 4
multiply 4 × 3 = 12
thus answer 1225
Trick 3)

Let the number 49. Look for the nearest multiple of 10. i.e.; in this case 50. We will reach 50 if we add 1 to 49. So, multiply (49+1) x (49-1) = 50 × 48 = 2400 This is the 1st interim answer.

We had added 1 to reach the nearest multiple of 10 that is 50 thus 1x 1 = 1 This is the second interim answer.
The final answer is 2400 + 1 = 2401 …

Another example
Let the number be 47.

Look for the nearest multiple of 10. i.e.; in this case 50. We will reach 50 if we add 3 to 47. So, multiply (47+3) x (47-3) = 50 × 44 = 2200 This is the 1st interim answer.

We had added 3 to reach the nearest multiple of 10 that is 50 thus 3x 3 = 9 This is the second interim answer.

The final answer is 2200 + 9 = 2209 …

5) **Multiplication of 2 digit numbers from 11 to 10**
Take 2 numbers like 12 and 19
Place the larger number (19) at the top and the 2nd digit of the smaller number (2) in the bottom.
19
2
Add 19+2=21, Then multiply 21x10=210
Now, multiply the unit's digit of both numbers, i.e., 2x9=18.
Add the two numbers, 210+18 and the answer is 238

6) **Multiplication of any 3 digit numbers**
Take any two numbers like 108 and 106
Now subtract the number at units place
108-8=100
106-6=100
Now select any number and add the unit digit of another number
108+6=114
Now multiply, 114x100=11400
Now multiply the unit digits of both numbers, 8x6=48
Add, 11400+48=11448
The product of the numbers 108 and 106 is 11148

Few More example
202 and 206
Now subtract the number at units place
202-2=200
206-6=200
Now select any number and add the unit digit of another number
202+6=208
Now multiply, 208X200=41600
Now multiply the unit digits of both numbers, 2x6=12
Add, 41600+12=41612
The product of the numbers 202 and 206 is 41612

7) **Some Important Multiplication which can be done quickly**

Multiply by 5: Multiply by 10 and divide by 2.
Multiply by 6: Sometimes multiplying by 3 and then 2 is easy.

Multiply by 9: Multiply by 10 and subtract the original number.
Multiply by 12: Multiply by 10 and add twice the original number.
Multiply by 13: Multiply by 3 and add 10 times original number.
Multiply by 14: Multiply by 7 and then multiply by 2
Multiply by 15: Multiply by 10 and add 5 times the original number, as above.
Multiply by 16: You can double four times, if you want to. Or you can multiply by 8 and then by 2.
Multiply by 17: Multiply by 7 and add 10 times original number.
Multiply by 18: Multiply by 20 and subtract twice the original number (which is obvious from the first step).
Multiply by 19: Multiply by 20 and subtract the original number.
Multiply by 24: Multiply by 8 and then multiply by 3.
Multiply by 27: Multiply by 30 and subtract 3 times the original number (which is obvious from the first step).
Multiply by 45: Multiply by 50 and subtract 5 times the original number (which is obvious from the first step).
Multiply by 90: Multiply by 9 (as above) and put a zero on the right.
Multiply by 98: Multiply by 100 and subtract twice the original number.
Multiply by 99: Multiply by 100 and subtract the original number

8) **How to quick convert kilos to pound**

Example
a) 112 Kg
Solution
Step 1: Multiply by 2
112X2= 224
Step 2: Divide the previous one by 10
224/10=22.4
Step 3:
Add both the number
224+ 22.4= 246.4 pounds
b) 86 kg
Solution
Step 1: Multiply by 2
86X2= 172
Step 2: Divide the previous one by 10
86/10=8.6
Step 3:
Add both the number
172+ 8.6= 180.6 pounds

So, it is quite quick

Practice Questions
a) 100 kg
b) 200kg
c) 50kg
d) 2 kg

9) **How to quickly add time**
Example
1 hr 35 min and 2 hr 46 min
Step 1 . Treat them as number
135 and 246.
Now add them = 381
Step 2. Add 40
381+ 40 = 421
So total time is 4 hours and 21 min

10) **How to quickly perform temperature conversion from Fahrenheit to Celsius or Celsius to Fahrenheit**

Example
1) 100 F
Solution
Subtract 30 and divide by 2
100-30 =70/2=35 C2) 30 C
Solution
Double it and 30
30X2=60+30= 90 F

So, it is quite and simple to convert temperature conversion from Fahrenheit to Celsius or Celsius to Fahrenheit

Practice Questions
a) 90 F
b) 35C
c) 98 F
d) 40 C

So clearly Knowing these simple calculation techniques gives you an advantage over others and can get you a job, get you crack any competitive exams and much more.