dding all these Integrals, we have

$$\int_{x_0}^{x_n} f(x)dx =$$

$$\frac{3h}{10}[(y_o + y_2 + y_4 + y_8 + y_{10} + ...) + 5(y_1 + y_5 + y_7 + y_{11} + ...) +$$

$$6(y_3 + y_9 + ...) + 2(y_6 + y_{12} + ...)]$$

In rule n must be a multiple of 6, this is called Weddle's rule.

gorithm 4.3: Algorithm For Weddle's Rule

1. Define f(x)
2. Enter the values of upper and lower limit of b,a
3. Enter the number of steps, N
4. Ns=6
5. h={(b-a)/N}/Ns
6. sum=0
7. do
   {
   sum=sum+3h/10(((f(a)+5(f(a+h))+f(a+2h)+6(f(a+3h))+f(a+4h)+
   5(f(a+5h))+f(a+6h))));
   a=a+Ns*h;
   }while(a<b);
8. print Sum
9. Stop

ogram 4.3: C Program For Weddle's Rule

```
nclude<stdio.h>
nclude<conio.h>
nclude<stdlib.h>
oat func (float x)
```