**FORMULA**

1. = ln(x+) x=atan, acot

8. = ln(x+)x=asec, acosec

9. = x=asin, acos

The results can be obtained by two methods

Integration by substitution and Integration by parts

I==-

=- =-

=-+

2I=+

I= + ln(x+)+c

Type 13 dx

**Procedure**  dx

**Example:** Workout

Solution: =

=

=+c

**Type 14**

**Procedure**

**Example:** Workout

Solution :

=  +

=+

=+

= 

++c

**Type15**  , ,

**Procedure**  Substitute

Examples , , ,

**Example:** Workout

Solution

= , put , 

==

==

=

**Example:** Workout 

Solution

Put

=

put , 

===

==

=

Type16 , ,

,

**Procedure**  Substitute

find the value of *l , m & n*

Examples Workout , ,

,

Exam Workout

**Solution:**

Let

Equating the coefficient of *cosx*  & *sinx,* we get

, from this eqution we get ,

Exam Workout

**Solution:**

Let

+n

Equating the coefficient of *cosx*  & *sinx,* we get

from this eqution we get and

Put

=

put , 

==

==

=

+c