# 习题 5.2

1、计算下列不定积分

（1）、

=

=

=

(2)、

=

=-

=

(3)、

=

=

(4)、

=

=

(5)、

=

=

(6)、

=

=

=

=

(7)、

=

=

=

(8)、

=

=

(9)、

=

=

=

=2

(10)、

=

=

(11)、

=

=

=

(12)、

=

=

=

=

=

(13)、

=

=

=

=

(14)、

=

=

(15)、

=

=

=

(16)、

=

=

=

=

=

=

(17)、

=

=

=

=

=

(18)、

=

=

=

=

(19)、

=

=

=

=

2、计算下列定积分

(1)、

令t，

=

=

=

因为

(2)、

令

原式

=

=

=

(3)、

令

=

(4)、

设

=

=

=

=

(5)、

=

(6)、

设

=

=

=

因为

原式

(7)、

令

=

=

因为

=

(8)、

令

=

=

因为

(9)、

令

因为

(10)、

设

=

因为

(11)、

令

=

=

因为

所以原式=