

$$\int_a^b 1 dx$$

1

$$\int_a^b f(x) dx$$

2

$$\int_C 1 ds$$

3

$$\int_C |\mathbf{r}'(t)| dt$$

4

$$\int_C f ds$$

5

$$\int_a^b f(\mathbf{r}(t)) |\mathbf{r}'(t)| dt$$

6

$$\int_C \mathbf{F} \cdot \mathbf{T} ds$$

7

$$\int_a^b \mathbf{F}(\mathbf{r}(t)) \cdot \mathbf{r}'(t) dt$$

8

$$\iint_D 1 dA$$

9

$$\iint_D f(x, y) dA$$

10

$$\iint_S 1 dS$$

11

$$\iint_D 1 |\mathbf{r}_u \times \mathbf{r}_v| dA$$

12

$$\iiint_S f(x, y, z) dS$$

13

$$\iint_D f(\mathbf{r}(u, v)) |\mathbf{r}_u \times \mathbf{r}_v| dA$$

14

$$\iint_S \mathbf{F} \cdot \mathbf{n} dS$$

15

$$\iint_D \mathbf{F} \cdot (\mathbf{r}_u \times \mathbf{r}_v) dA$$

16

$$\iiint_E 1 dV$$

17

$$\iiint_E f dV$$

18

Single integral which gives the length of an interval

S

Single integral which gives the area of a region

R

Line integral of a scalar field which gives the length of a curve

Q

Line integral of a scalar field in parameterized form which gives the length of a curve

P

Line integral of a scalar field which gives the mass of a wire

N

Line integral of a scalar field in parameterized form which gives the mass of a wire

M

Line integral of a vector field which gives work done

L

Line integral of a vector field in parameterized form which gives work done

K

Double integral which gives an area

J

Double integral which gives a volume

I

Surface integral of a scalar field which gives a surface area

H

Surface integral of a scalar field in parameterized form which gives a surface area

G

Surface integral of a scalar field which gives the mass of a surface

F

Surface integral of a scalar field in parameterized form which gives the mass of a surface

E

Surface integral of a vector field which gives flux

D

Surface integral of a vector field in parameterized form which gives flux

C

Triple integral which gives volume

B

Triple integral which gives the mass of a 3D solid

A