**Syntax for visualization of the surfaces:**

```
viewSolid(z,0+0*x+0*y,f,y,phi1,phi2,x,a,b)

viewSolidone (z,0+0*x+0*y,f,x,psi1,psi2,y,c,d)
```

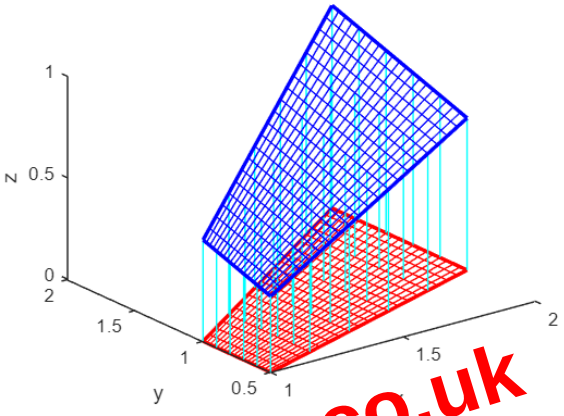
**Example. 1** To find $\int_1^2 \int_{x/2}^{x} \frac{x+y}{4} dydx$.

```
syms x y z
int(int((x+y)/4,y,x/2,x),x,1,2)
viewSolid(z,0+0*x+0*y,(x+y)/4,y,x/2,x,x,1,2)
```

**Output**

```
ans =
49/96
```

In this figure the required volume is above the plane z=0 (shown in red) and above the surface $z = \frac{x+y}{4}$ (shown in green) .




**Example. 2** To find the volume of the prism whose base is the triangle in the $xy-$plane bounded by the $x-$axis and the lines $y = x$ and $x = 1$ and whose top lies in the plane $z = f(x,y) = 3 - x - y$. The limits of integration here are $y = 0$ to 1 while $x = y$ to 1.

Hence $\iint_R (3-x-y)dA = \int_0^1 \int_y^1 (3-x-y)dxdy$



```
syms x y z
int(int(3-x-y,x,y,1),y,0,1)
viewSolidone(z,0+0*x+0*y,3-x-y,x,y,1,y,0,1)
```

**Output:**

```
ans =
1
```

In this figure the triangular region on the *xy* plane is shown in red, while the plane surface *z*=3–*x*–*y* above the *xy* plane is shown in green.