

## Kuliah ke 8

### Double integral

$$V = \iint f(x, z) dx dz$$

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In [11]: #a=0
#b=2
dx=0.01
dz=0.01
nx=int((10)/dx)
nz=int(6/dz)
V=0
for i in range(nz):
    A=0; x0=0;
    for k in range(nx):
        # Hitung Luas A1
        x1=x0+(k)*dx
        y1=5 # y11=f1(x11)
        x2=x0+(k+1)*dx
        y2=5 # y21=f1(x21)
        dA=(y1+y2)*dx/2
        A=A+dA

    dV=A*dz
    V=V+dV

print(A)
print(V)
```

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49.99999999999993
299.9999999999991
```

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In [12]: dx=0.01
dz=0.01
nx=int((10-(-10))/dx)
nz=int(50/dz)
V=0
for i in range(nz):
    A=0; x0=0;
    for k in range(nx):
        # Hitung Luas A1
        x1=x0+(k)*dx
        y1=x1**2 # y11=f1(x11)
        x2=x0+(k+1)*dx
        y2=x2**2 # y21=f1(x21)
        dA=(y1+y2)*dx/2
        A=A+dA

    dV=A*dz
    V=V+dV

print(A)
print(V)
```

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2666.667000000005
133333.35000001293
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