**1. Use random function to get single digit**

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$ echo $((RANDOM%9))

3

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$ echo $((RANDOM%9))

8

**2. Use random to get dice number between 1 to 6**

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$ echo $((RANDOM%6+1))

3

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$ echo $((RANDOM%6+1))

6

**3. Add two random dice number and printing the result**

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$ nano dice1.sh

#!/bin/bash -x

firstvar=$((RANDOM%6+1))

secondvar=$((RANDOM%6+1))

result=$((firstvar+secondvar))

echo $result

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$ chmod +x dice1.sh

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$ ./dice1.sh

+ firstvar=6

+ secondvar=4

+ result=10

+ echo 10

10

**4. Reading 5 Random 2 digit number and printing the sum and average**

#!/bin/bash -x

firstvar=$((RANDOM%100))

secondvar=$((RANDOM%100))

thirdvar=$((RANDOM%100))

fourthvar=$((RANDOM%100))

fifthvar=$((RANDOM%100))

result=$((firstvar+secondvar+thirdvar+fourthvar+fifthvar))

average=`awk "BEGIN{print (($result/5))}"`

echo result=$result

echo average=$average

output:

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$ ./random4.sh

+ firstvar=78

+ secondvar=67

+ thirdvar=54

+ fourthvar=80

+ fifthvar=93

+ result=372

++ awk 'BEGIN{print ((372/5))}'

+ average=74.4

+ echo result=372

result=372

+ echo average=74.4

average=74.4

**5. Unit Conversion**

**a. 1ft = 12 in then 42 in = ? ft**

#! /bin/bash -x

echo enter\_ft\_value

read ft

inch=$((ft\*12))

echo $inch

output:

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$ ./random5a.sh

+ echo enter\_ft\_value

enter\_ft\_value

+ read ft

42

+ inch=504

+ echo 504

504

**b. Rectangular Plot of 60 feet x 40 feet in meters**

#! /bin/bash -x

v1=60

v2=40

v3=`awk "BEGIN{print (($v1 \* 0.3048))}"`

v4=`awk "BEGIN{print (($v2 \* 0.3048))}"`

v5=`awk "BEGIN{print (($v3\*$v4))}"`

echo $v5

output:

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$ ./random5b.sh

+ v1=60

+ v2=40

++ awk 'BEGIN{print ((60 \* 0.3048))}'

+ v3=18.288

++ awk 'BEGIN{print ((40 \* 0.3048))}'

+ v4=12.192

++ awk 'BEGIN{print ((18.288\*12.192))}'

+ v5=222.967

+ echo 222.967

222.967

**c. Calculate area of 25 such plots in acres**

#!/bin/bash -x

echo enter a plot number

read number

#an acre consist of 6 plots

acre=`awk "BEGIN{print (($number/6))}"`

plottoacre=`awk "BEGIN{print (($acre\*120))}"`

echo plot to acre in feet : $plottoacre

output:

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$ ./random5c.sh

+ echo enter a plot number

enter a plot number

+ read number

25

++ awk 'BEGIN{print ((25/6))}'

+ acre=4.16667

++ awk 'BEGIN{print ((4.16667\*120))}'

+ plottoacre=500

+ echo plot to acre in feet : 500

plot to acre in feet : 500