Sequences Practice Problems

1. Use Random Function ((RANDOM)) to get Single Digit

```
#!/bin/bash -x
# %10 for 0 to 9
randomNum=$((RANDOM%10))
echo "Random single digit : $randomNum"
```

2. Use Random to get Dice Number between 1 to 6

```
randomNum=$((RANDOM%6))
diceValue=$(($randomNum+1))
echo "Random dice value : $diceValue"
```

3. Add two Random Dice Numbers and Print the Result

```
randomNum1=$((RANDOM%6+1))
randomNum2=$((RANDOM%6+1))
Addition=$(($randomNum1+$randomNum2))
echo "2 Dice value Addition : $Addition"
```

4. Write a program that reads 5 Random 2 Digit values, then find their sum and the average

```
counter=1
echo "Random 5 numbers are - "
while [ $counter -le 5 ]
do
        randomNum=$(($((RANDOM%90))+10))
        printf "$randomNum \t"
        sum=$(($sum+$randomNum))
        ((counter++))
done

printf "\nSum is : $sum \t Average is : "
avg= awk -v sum=$sum -v totalnum=5 'BEGIN {print (sum / totalnum)}'
```

5. Unit Conversion
a. 1ft = 12in then 42in = ? ft
b. Rectangular Plot of 60 feet x 40 feet in meters
c. Calculate area of 25 such plots in acres

```
printf "1] 1 ft = 12 inch, 42 inch = "
answer= awk -v ftinch=12 -v chkinch=42 'BEGIN { print (chkinch/ftinch) " ft " }'

#1sqm=10.764sqft
area_sqft=$((60*40))
printf "2] area in sqft = $area_sqft sqft"
printf "\t area in sqm = "
awk -v ftarea=$area_sqft -v onesqmt=10.764 'BEGIN { print ftarea/onesqmt " sqm " }'

#1acre=43560sqft
printf "3] area of 25 plots in acre : "
awk -v oneacre=43560 'BEGIN { print (60*40*25)/oneacre " acre " }'
```