Write a program that takes a command-line argument n and prints a

table of the powers of 2 that are less than or equal to 2^n till 256 is

reached..

#! /bin/bash

read -p "Enter power: " power

i=0

limit=256

result=0

while [ $i -le $power -a $result -lt $limit ]

do

result=$((2\*\*i))

echo "2 ^" $i "=" $result

i=$((i+1))

done

Enter power: 13

2 ^ 0 = 1

2 ^ 1 = 2

2 ^ 2 = 4

2 ^ 3 = 8

2 ^ 4 = 16

2 ^ 5 = 32

2 ^ 6 = 64

2 ^ 7 = 128

2 ^ 8 = 256

Extend the Flip Coin problem till either Heads or Tails wins 11 times.

#! /bin/bash

head\_count=0

tail\_count=0

while [ $head\_count -ne 11 -a $tail\_count -ne 11 ]

do

coin=$(( RANDOM%2 ))

if [ $coin -eq 0 ]

then

head\_count=$((head\_count+1))

else

tail\_count=$((tail\_count+1))

fi

done

echo "HEADS: " $head\_count

echo "TAILS: " $tail\_count

if [ $head\_count -gt $tail\_count ]

then

echo "HEAD WINS !!!!!!!"

else

echo "TAIL WINS !!!!!!!"

fi

HEADS: 11

TAILS: 8

HEAD WINS !!!!!!!

Write a Program where a gambler starts with Rs 100 and places Re 1 bet until he/she goes broke i.e. no more money to gamble or reaches the goal of Rs 200. Keeps track of number of times won and number of bets made.

#! /bin/bash

money=100

limit=200

wins=0

bets=0

while [ $money -ne 0 -a $money -ne $limit ]

do

bets=$((bets+1))

coin=$(( RANDOM%2 ))

if [ $coin -eq 0 ]

then

money=$((money+1))

wins=$((wins+1))

echo "WIN"

else

money=$((money-1))

echo "LOSS"

fi

echo "money left: " $money

echo "wins: " $wins

echo "bets made: " $bets

echo "------------------------"

done

echo "TOTAL MONEY LEFT: " $money

echo "TOTAL WINS COUNT: " $wins

echo "TOTAL BETS MADE: " $bets

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WIN

money left: 199

wins: 6824

bets made: 13549

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LOSS

money left: 198

wins: 6824

bets made: 13550

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WIN

money left: 199

wins: 6825

bets made: 13551

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WIN

money left: 200

wins: 6826

bets made: 13552

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TOTAL MONEY LEFT: 200

TOTAL WINS COUNT: 6826

TOTAL BETS MADE: 13552