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1  # This program demonstrates how the range function can be used with a for loop.
2
3  # Print a message five times.
4  for x in range(5):
5      print(x, 'Hello world!')
6  print(' \n')
7
8  # Print a message five times.
9  for x in range(1,6):
10     print(x, 'Hello world!')
11 print(' \n')
12
13 # This program demonstrates a simple for loop
14 # that uses a list of numbers.
15 print('I will display the numbers 1 through 5.')
16 for num in [1, 2, 3, 4, 5]:
17     print(num)
18 print(' \n')
19
20 # This program also demonstrates a simple for
21 # loop that uses a list of strings.
22 for name in ['Winken', 'Blinken', 'Nod']:
23     print(name)

```

```

0 Hello world!
1 Hello world!
2 Hello world!
3 Hello world!
4 Hello world!

```

```

1 Hello world!
2 Hello world!
3 Hello world!
4 Hello world!
5 Hello world!

```

```

I will display the numbers 1 through 5.

```

```

1
2
3
4
5

```

```

Winken
Blinken
Nod

```

```

1      # This program calculates sales commissions.
2
3      # Create a variable to control the loop.
4      keep_going = 'y'
5
6      # Calculate a series of commissions.
7      while keep_going == 'y':
8          # Get a salesperson's sales and commission rate.
9          sales = float(input('Enter the amount of sales: '))
10         comm_rate = float(input('Enter the commission rate: '))
11
12         # Calculate the commission.
13         commission = sales * comm_rate
14
15         # Display the commission.
16         print('The commission is $', format(commission, '.2f'), sep='')
17
18         # See if the user wants to do another one.
19         keep_going = input('Do you want to calculate another ' + \
20                             'commission (Enter y): ')

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Enter the amount of sales: 10000
Enter the commission rate: 0.3
The commission is $3,000.00
Do you want to calculate another commission (Enter y): y
Enter the amount of sales: 3000
Enter the commission rate: 0.05
The commission is $150.00
Do you want to calculate another commission (Enter y): n

```

```

1  # Number guessing game
2  import random
3
4  # Generate a random number to be guessed
5  number = random.randint(0, 100)
6
7  print("Guess a magic number between 0 and 100")
8
9  guess = -1
10 while guess != number:
11     # Prompt the user to guess the number
12     guess = eval(input("Enter your guess: "))
13
14     if guess == number:
15         print("Yes, the number is", number)
16     elif guess > number:
17         print("Your guess is too high")
18     else:
19         print("Your guess is too low")

```

```

Guess a magic number between 0 and 100
Enter your guess: 50
Your guess is too low
Enter your guess: 75
Your guess is too low
Enter your guess: 90
Your guess is too high
Enter your guess: 85
Your guess is too low
Enter your guess: 88
Your guess is too high
Enter your guess: 87
Your guess is too high
Enter your guess: 86
Yes, the number is 86

```