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1  # HW13 solutions
2
3  print("----- Task 1 -----" )
4
5  def print_product(a, b):
6      print(f"The product of {a} and {b} is {a * b}." )
7
8  # example
9  print_product(3, 5)
10
11 print("----- Task 2 -----" )
12
13 def calc_product(a, b):
14     return(a * b)
15
16 # example
17 x = calc_product(4, 6)
18 print(x)
19
20 print("----- Task 3 -----" )
21
22 def dict_from_lists(a, b):
23     return(dict(zip(a, b)))
24
25 # example
26 countries = ["France", "Italy"]
27 capitals = ["Paris", "Rome"]
28 D = dict_from_lists(countries, capitals)
29 print(D)
30
31 print("----- Task 4 -----" )
32
33 def safe_division(a, b):
34     if (type(a)==int or type(a)==float) and (type(b)==int or type(b)==float) \
35         and b != 0:
36         return(a/b)
37     else:
38         return("NAN")
39
40 # example
41 x1 = safe_division(3, 0)
42 x2 = safe_division("ok", 4)
43 x3 = safe_division(3, 4)
44 print(x1, x2, x3)
45
46 print("----- Task 5 -----" )
47
48 # remove comments to run the code below, Ctrl + 1 in Spyder
49
50 def int_input():
51
52     while True:
53         usernum = input("Please, enter an integer: " )
54         if usernum == "quit" or usernum == "exit":
55             usernum = "NAN"
56             break
57         try:
58             usernum = int(usernum)

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59         break
60     except:
61         print("Not an integer")
62         continue
63     return(usernum)
64 #
65 ## example
66 #x = int_input()
67 #print(x)
68
69 print("----- Task 6 -----" )
70 def listval(*x):
71     return(list(x))
72
73 # example
74 x = listval(2, 4, 6, 8)
75 print(type(x), x)
76
77 print("----- Task 7 -----" )
78 def uniques(*x):
79     return(list(set(x)))
80
81 # example
82 x = uniques(1, 2, 2, 3, 3, 3, 4, 4, 4, 4)
83 print(type(x), x)
84
85 print("----- Task 8 -----" )
86 import datetime
87 def day():
88     return(int(str(datetime.date.today())[-2:]))
89
90 # here is the detailed breakdown of the line above:
91 # date = datetime.date.today() # full date in datetime default format
92 # date_str = str(date) # convert the above to a string
93 # day_of_the_month = date_str[-2:] # the last two digits (day of the month)
94 # day_integer = int(day_of_the_month) # convert the above string to an integer
95 # return(day_integer) # return the integer value
96
97 # example
98 print(f"Today's day of the month is: {day()}." )
99
100

```