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# SE 113 LAB 4 SAMPLE SOLUTION
# filename: lab4.py

rank = int(input("What is the worker's rank? "))
years = int(input("For how many years has the worker been in that rank? "))
salary = int(input("What is the worker's current salary? "))

# print("The worker is going to be promoted in", 5-years, "years' time.")
# This line could be written outside the entire "if" statement as a single line as opposed to 4 copies of the same line,
# I put it inside just because I think it looks more neat :)

if rank == 1:
    print("The worker is a Software Engineer.")
    print("The worker is going to be promoted in", 5-years, "years' time.")
    print("The worker's salary is going to increase to", salary + salary * 0.1, "next year.")
elif rank == 2:
    print("The worker is a Senior Engineer.")
    print("The worker is going to be promoted in", 5 - years, "years' time.")
    print("The worker's salary is going to increase to", salary + salary * 0.15, "next year.")
elif rank == 3:
    print("The worker is a Principal Engineer.")
    print("The worker is going to be promoted in", 5 - years, "years' time.")
    print("The worker's salary is going to increase to", salary + salary * 0.2, "next year.")
elif rank == 4:
    print("The worker is a Distinguished Engineer.")
    print("The worker is going to be promoted in", 5 - years, "years' time.")
    print("The worker's salary is going to increase to", salary + salary * 0.3, "next year.")
else:
    print("Invalid rank choice!")

# TODO@HOME section

x = float(input("Please enter a number: "))

if x == 0:
    y = 0
elif x <= -1 or x >= 1:
    y = x*x*x
else:
    y = 1/x

print("The result is:", y)
```