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# #Chamine Mudalige #integration project #This program solves
  Linear Systems of Equations with -1 as one of the
# coefficients. #Each equation has two variables with one of
the coefficients being -1. #Should be able to figure out
# where the -1 coefficient is located and choose the
appropriate steps to solve for the two variables and shows
the
# steps to get there. #I used POGLE 7 (Python Activity 7:
Nested IF-ELSE Statements [Word Document] ,Python Activity
# 7: Nested IF-ELSE Statements. Microsoft Corporation.Python
Activity 07 Nested IF-ELSE Statements -
# POGIL.docx(Preview the document) and (Repl.it - https://
repl.it/student/submissions/10782948) to help me with my
# integration project
# Choose a calculator. The two choices are Simple or Find
Solution
pick1 = str("Find Solution")
pick2 = str("simple")
calculator = str(input('Enter a word: '))
if calculator == pick1:
    # comment: making and if, elif, and else. Use simple for
normal calculator and find solution for other calculator.
    a = int(input("Enter a positive or negative number for
the constant of x in the first equation: "))
    c = int(input("Enter a positive or negative number for
the constant of y in the first equation: "))
    d = int(input("Enter what the first equation equals: "))
    e = int(input("Enter a positive or negative number for
the constant of x in the second equation: "))
    g = int(input("Enter a positive or negative number for
the constant of y in the second equation: "))
    h = int(input("Enter what the first equation equals: "))
    print(a, c, d, e, g, h)
    print(a, "* x", "+", c, "* y", "=", d)
    print(e, "* x", "+", g, "* y", "=", h)
    if -1 == a and abs(a * e) == abs(e):
        print((a * e), "x", "+", (c * e), "y", "=", (d * e))
        print(e, "x", "+", g, "y", "=", h)
        print(((a * e) + e), "x", "+", ((c * e) + g), "y",
"=", ((d * e) + h))
        print((((c * e) + g) / ((c * e) + g)), "y", "=", (((d
* e) + h) / ((c * e) + g)))
        y = (((d * e) + h) / ((c * e) + g))
        print(a, "* x", "+", (c * y), "=", d)
        print(a, "* x", "+", ((c * y) - (c * y)), "=", (d - (
c * y)))
        print((a / a), "* x", "+", ((c * y) - (c * y)), "=",
, ((d - (c * y)) / a))

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        x = ((d - (c * y)) / a)
        print("x =", x, "y =", y)
    elif -1 == c and abs(c * g) == abs(g):
        print((a * g), "x", "+", (c * g), "y", "=", (d * g))
        print(e, "x", "+", g, "y", "=", h)
        print(((a * g) + e), "x", "+", ((c * g) + g), "y",
"=", ((d * g) + h))
        print((((a * g) + e) / ((a * g) + e)), "x", "=", (((d
* g) + h) / ((a * g) + e)))
        x = (((d * g) + h) / ((a * g) + e))
        print((a * x), "+", c, "* y", "=", d)
        print(((a * x) - (a * x)), "+", c, "* y", "=", (d - (
a * x)))
        print(((a * x) - (a * x)), "+", (c / c), "* y", "="
, ((d - (a * x)) / c))
        y = ((d - (a * x)) / c)
        print("x =", x, "y =", y)
    elif -1 == e and abs(e * a) == abs(a):
        print(a, "x", "+", c, "y", "=", d)
        print((e * a), "x", "+", (g * a), "y", "=", (h * a))
        print(((e * a) + a), "x", "+", ((g * a) + c), "y",
"=", ((h * a) + d))
        print((((g * a) + c) / ((g * a) + c)), "y", "=", (((h
* a) + d) / ((g * a) + c)))
        y = (((h * a) + d) / ((g * a) + c))
        print(a, "* x", "+", (c * y), "=", d)
        print(a, "* x", "+", ((c * y) - (c * y)), "=", (d - (
c * y)))
        print((a / a), "* x", "+", ((c * y) - (c * y)), "="
, ((d - (c * y)) / a))
        x = ((d - (c * y)) / a)
        print("x =", x, "y =", y)
    elif -1 == g and abs(g * c) == abs(c):
        print(a, "x", "+", c, "y", "=", d)
        print((e * c), "x", "+", (g * c), "y", "=", (h * c))
        print(((e * c) + a), "x", "+", ((g * c) + c), "y",
"=", ((h * c) + d))
        print((((e * c) + a) / ((e * c) + a)), "x", "=", (((h
* c) + d) / ((e * c) + a)))
        x = (((h * c) + d) / ((e * c) + a))
        print((a * x), "+", c, "* y", "=", d)
        print(((a * x) - (a * x)), "+", c, "* y", "=", (d - (
a * x)))
        print(((a * x) - (a * x)), "+", (c / c), "* y", "="
, ((d - (a * x)) / c))
        y = ((d - (a * x)) / c)
        print("x =", x, "y =", y)

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# Other examples
print(2 ** 2)
num2 = 100
print(num2)
num2 = 100 + 2
print(num2)
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# part 2
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```
b = input(int())
i = input()
j = input(int())
k = input()
l = input()
m = input()
n = input()
o = input()
```

```
print(b*g*h)
```

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elif calculator == pick2:
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```
# sprint 2
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# noinspection PyShadowingNames
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```
def getadda(num):
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```
    h = 0
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```
    h += num
```

```
    return h
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# noinspection PyShadowingNames
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```
def getequation(g, k, j):
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```
    a = str("add")
```

```
    b = str("subtract")
```

```
    c = str("multiply")
```

```
    d = str("divide")
```

```
    e = str("Done")
```

```
    i = 0
```

```
    while i == 0:
```

```
        if a == g:
```

```
            k += j
```

```
            return k
```

```
        elif b == g:
```

```
            k -= j
```

```
            return k
```

```
        elif c == g:
```

```
            k *= j
```

```
            return k
```

```
        elif d == g:
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        k /= j
        return k
    elif e == g:
        print(k)
        break
    else:
        print("pi")
        break

```

noinspection PyShadowingNames

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def main():
    a = "add"
    b = "subtract"
    c = "multiply"
    d = "divide"
    e = "Done"
    i = 0
    f = int(input("Enter a number: "))
    answerAdda = getadda(f)
    print("The smaller of the two numbers is", answerAdda

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)

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while i == 0:
    a = "add"
    b = "subtract"
    c = "multiply"
    d = "divide"
    e = "Done"
    i = 0
    g = str(input("Enter a word: "))
    if g != e: # place to try
        a = "add"
        b = "subtract"
        c = "multiply"
        d = "divide"
        e = "Done"
        i = 0
        j = int(input("Enter a number: "))
        k = answerAdda
        answerEquation = getequation(g, k, j)
        answerAdda = answerEquation
        print("number: ", answerAdda)
    elif g == e:
        print("number: ", answerAdda)
        break
    else:
        print("error")

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# call to main  
main()
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else:  
    print("error")
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