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shunting\_yard.py

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```

def isoperand(tok):
    try:
        float(tok)
    except:
        return False
    return True

def isoperator(tok):
    return tok in {"+", "-", "*", "-"}

def priority(tok):
    if tok in {"+", "-"}:
        return 1
    elif tok in {"*", "-"}:
        return 2
    else:
        raise ValueError("Not a operator")

def shunting_yard(stack, tokens):
    output = []
    for tok in tokens:
        if isoperand(tok):
            output += tok # print
        elif isoperator(tok):
            while stack and stack[-1] != "(" and \
                priority(stack[-1]) >= priority(tok):
                output += stack.pop()
            stack.append(tok) # push
        elif tok == "(":
            stack.append(tok)
        elif tok == ")":
            while stack[-1] != "(":
                output += stack.pop() # pop und print
            stack.pop() # linke Klammer ignorieren

    while stack:
        output += stack.pop() # pop und print

    return output

stack = []

expr = input("Ausdruck: ")

import re
tokens = re.split("(\\d|\\(|\\)|)", expr)

tokens = [tok for tok in tokens if tok != ""]

print(shunting_yard(stack, tokens))

```