

utile.py

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#!/usr/bin/env python3
# -*- coding: utf-8 -*-

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# fichier: utile.py
# version: 0.5.0
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#
# (tous les symboles non internationaux sont volontairement omis)
#

import string

JOKER = "?" # pour le monome de degre nul

def en_ordre_alphabetique(s):
    """ _ """
    t = "".join(s.split())
    t = "".join(sorted(list(t.lower()), key=str.lower))
    return t

def contient_erreur(s):
    """ _ """
    erreurs = 0
    for car in s:
        erreurs += not (car in string.ascii_letters or car == JOKER)
    return (erreurs > 0)

def reduction(s):
    """ _ """
    t = ""
    for car in s:
        if car != JOKER: t += car # '?'

    if len(t) == 0:
        return JOKER
    else:
        return t

def correction_math(s):
    """ quelques ajustements syntaxiques """
    t = ""
    for x in s:
        if (x in string.digits) or (x in string.ascii_letters):
            t += x
        if x in "{[": x = "("
        if x in "}]": x = ")"

        if x in "+-*/^:/()":
            t += x
    return t

if __name__ == "__main__":
    pass

```