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def sum_of_gp(a,r,n):
    if abs(r) < 1:
        sum_of_infin = a / (1 - r)
        return sum_of_infin

    elif r == 1:
        return n * a

    else:
        sum_of_fin = a * (1-r**n) / (1-r)
        return sum_of_fin

def main():
    a = float(input('Enter the scale factor:'))
    r = float(input('Enter the common ratio:'))

    # if converges
    # Since no n reserved word None will take its place.
    if abs(r) < 1:
        print('This GP converges with infinite elements to
        {}'.format(sum_of_gp(a,r,None)))

    #if GP doesnt converge number of element n is needed
    else:
        n = int(input('This GP does not converge to a finite number with infinite
        elements. Enter a number:'))

        # checking if n is greater than zero
        while not (n > 0):
            # since input was invalid user is prompted to re-enter number for n
            print('INVALID! (Number must be greater than zero)')
            n = int(input('Enter a number:'))

        print('This GP sum with {} elements is equal to {}'.format(n,
        sum_of_gp(a,r,n)))

main()

```