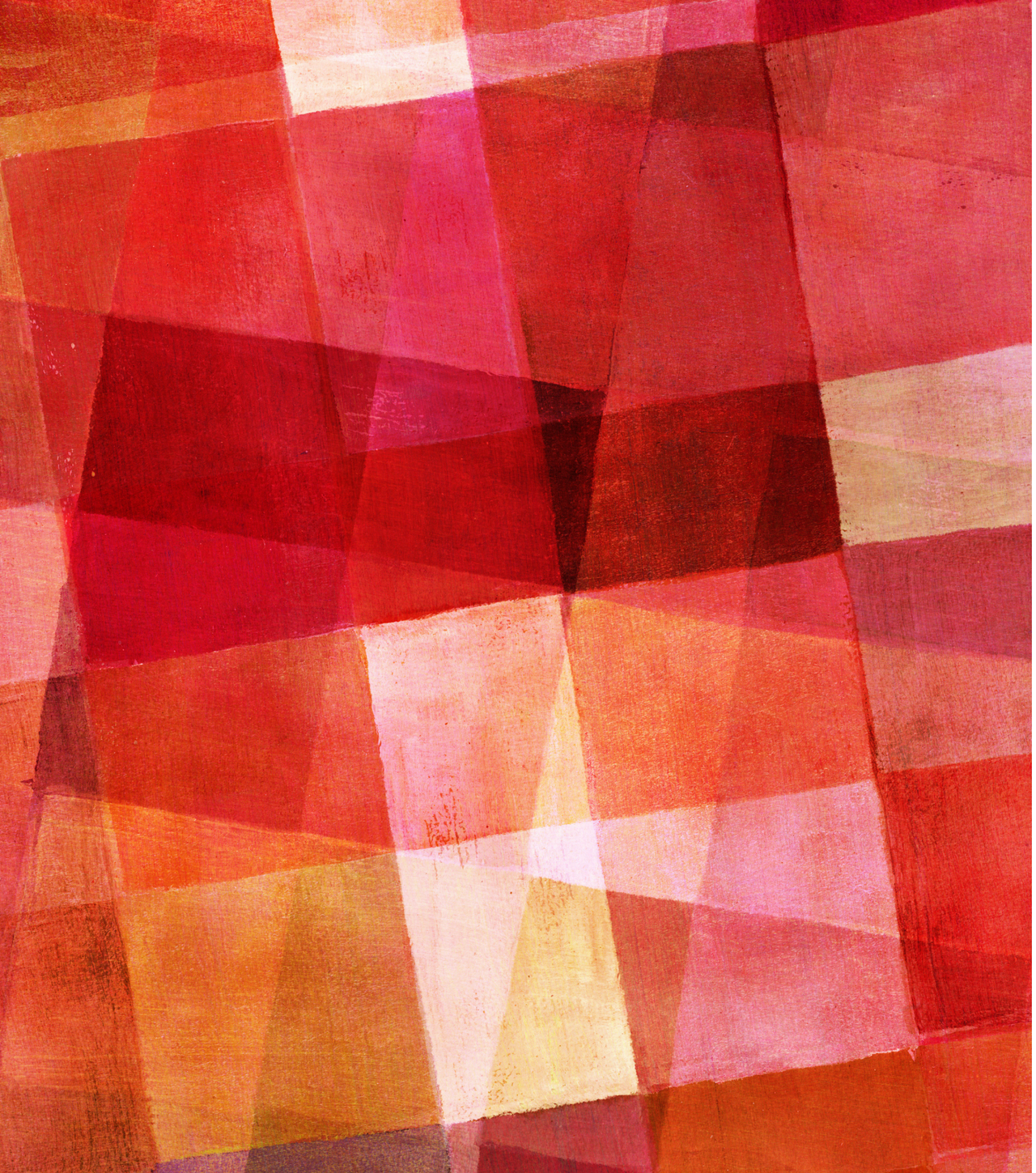
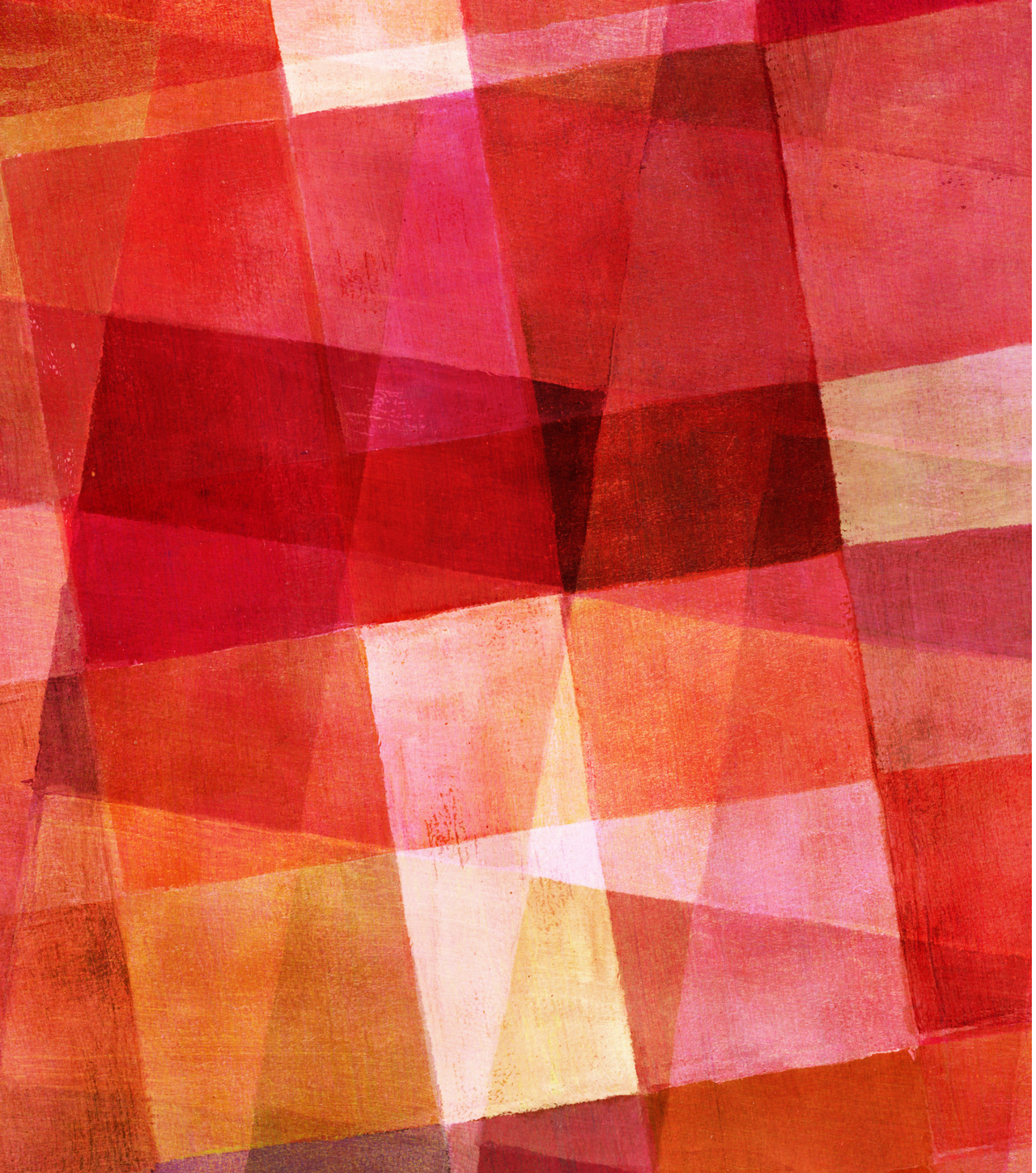
PYTHON REVIEW



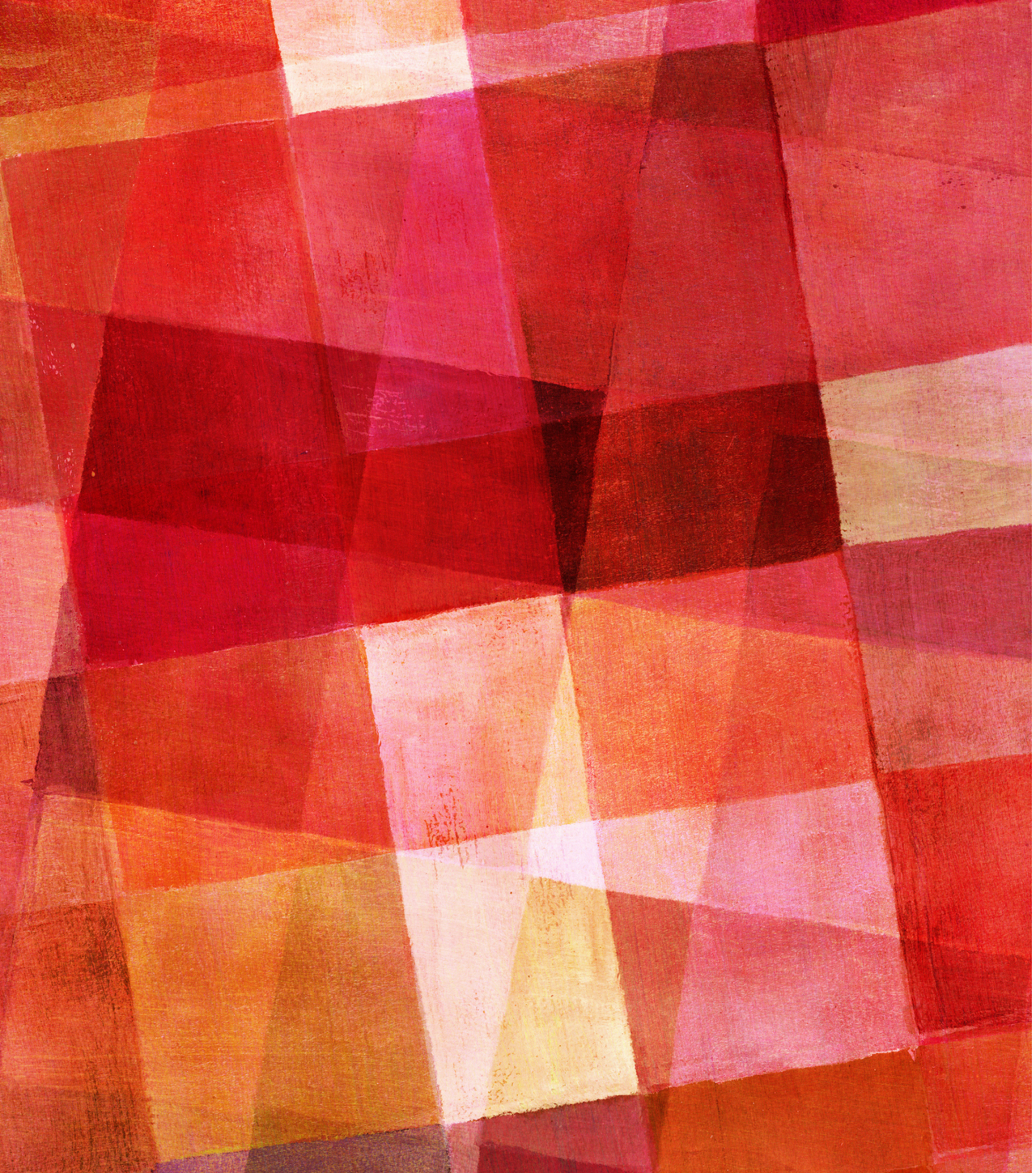
Variable

- How do we define a variable
- Give a name and use ‘=‘ to give it a value.



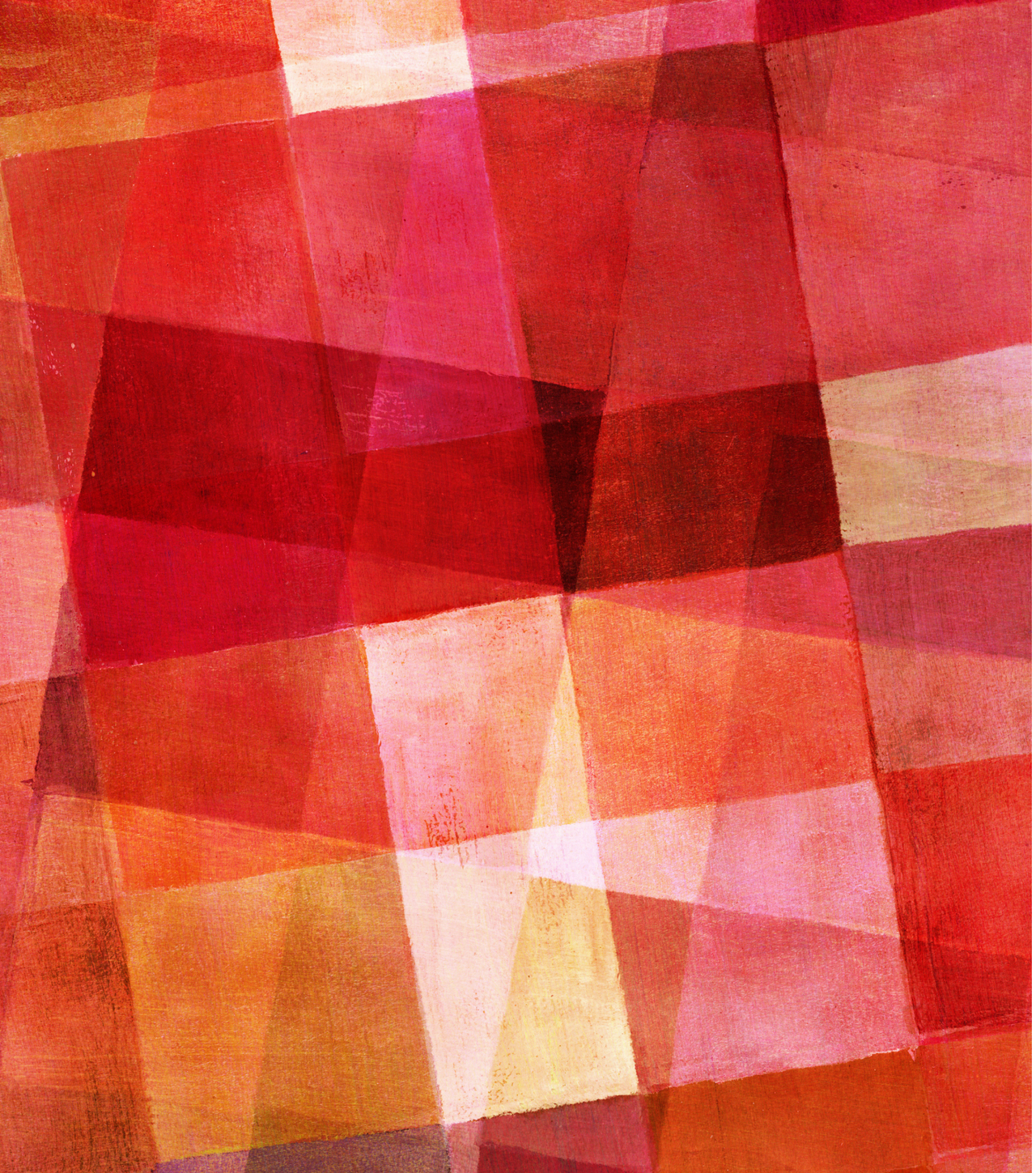
How Do we print something

- Two ways
  - Just type the variable name in the notebook
  - Use Print function
    - print(variable_name) or print(“String to be printed”)



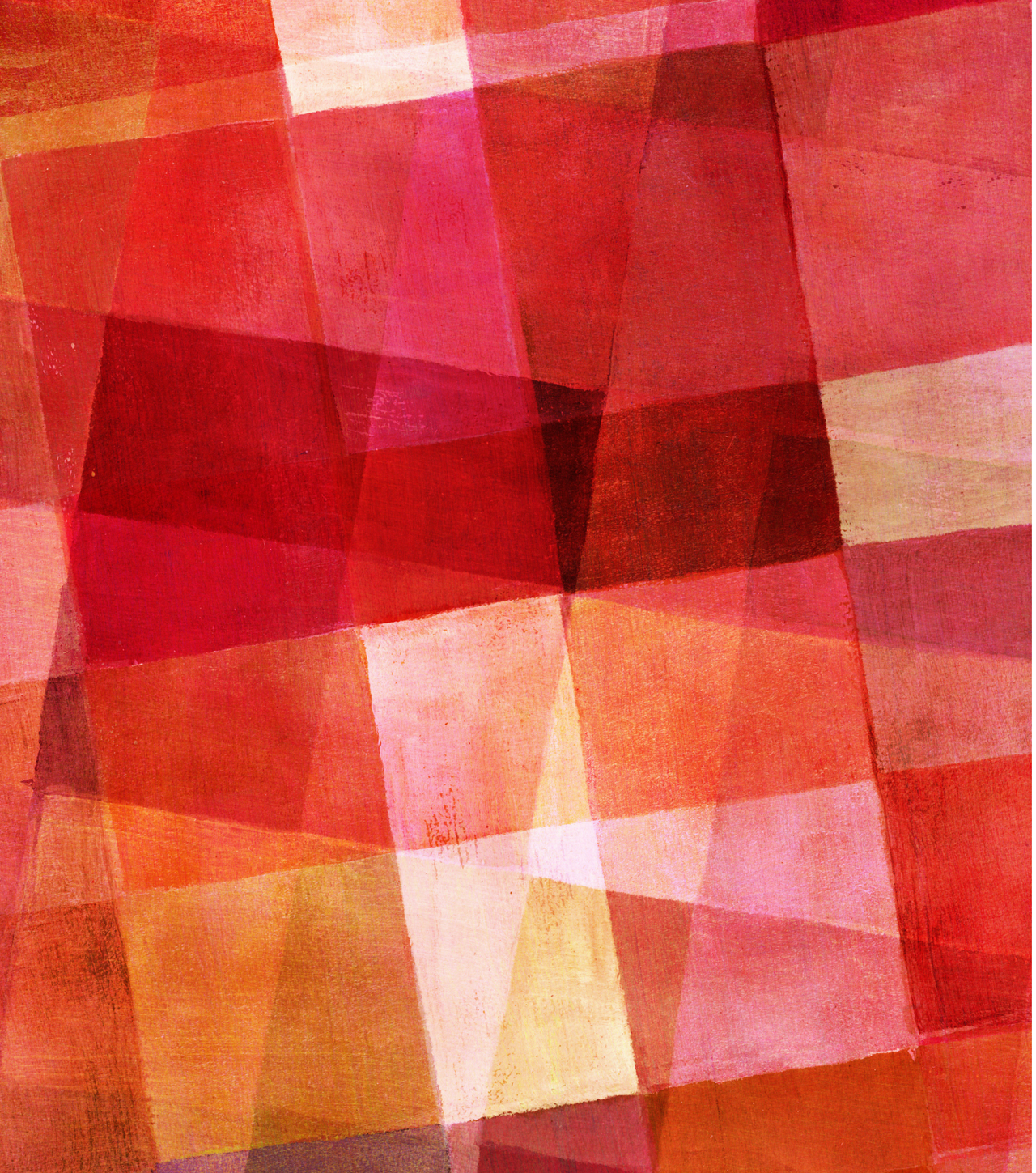
DATA TYPES

- String
- Integer
- Float
- List
  - Contains other Data types like strings and numbers
- Boolean



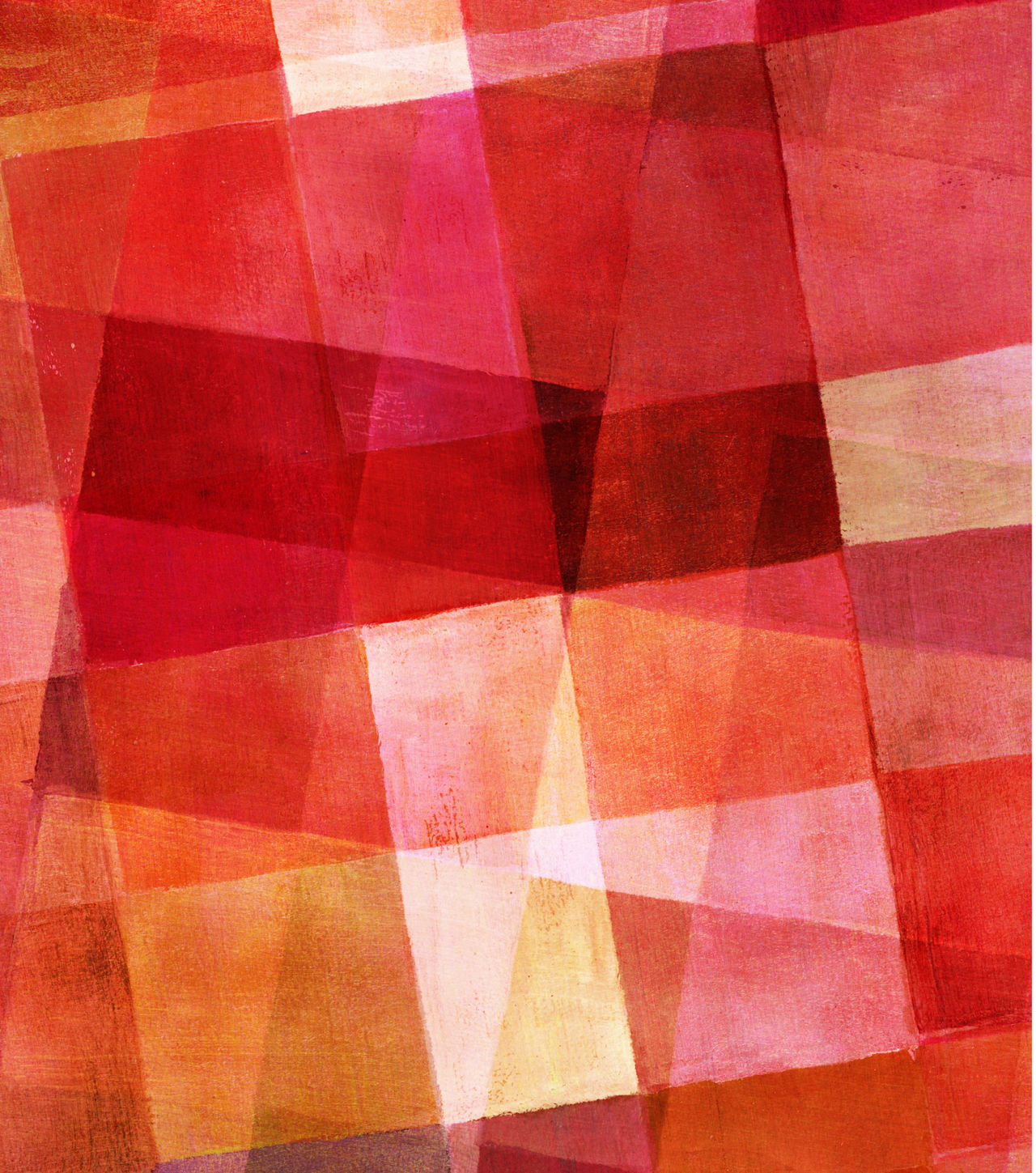
HOW TO CHECK VARIABLE TYPE

- Use the function type(variable_name)



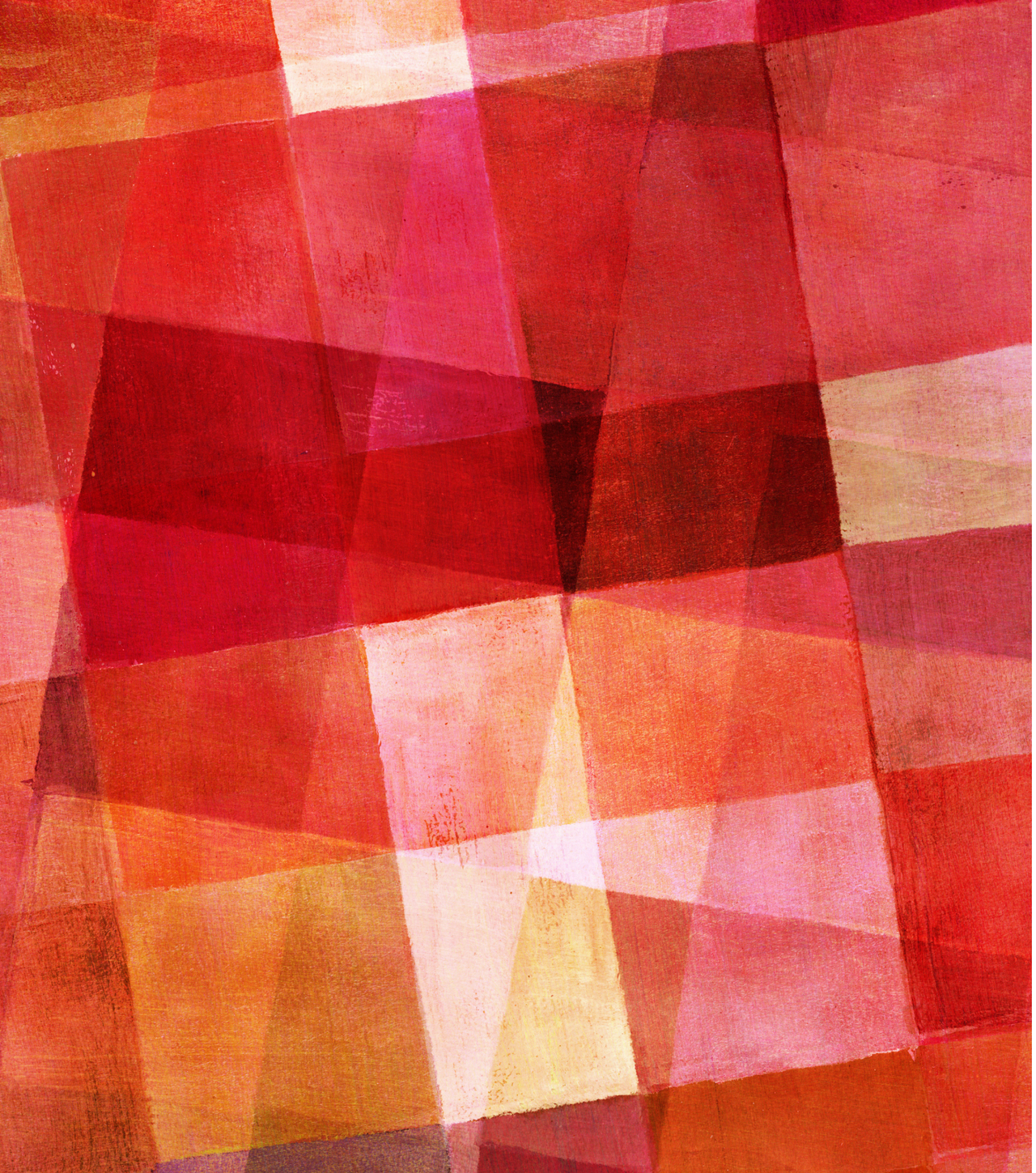
STRING ACCESS

- str_hello = “HEY”
  - H is at index 0, E at 1 and Y at 2
  - To access Y we can do str_hello[2]
- Reverse Index
  - Negative index value access it from end.
  - str_hello[-1] will give you 2.
- We can also access parts of strings using str_hello[start_index:end_index]
  - str_hello[1:2] -> HE



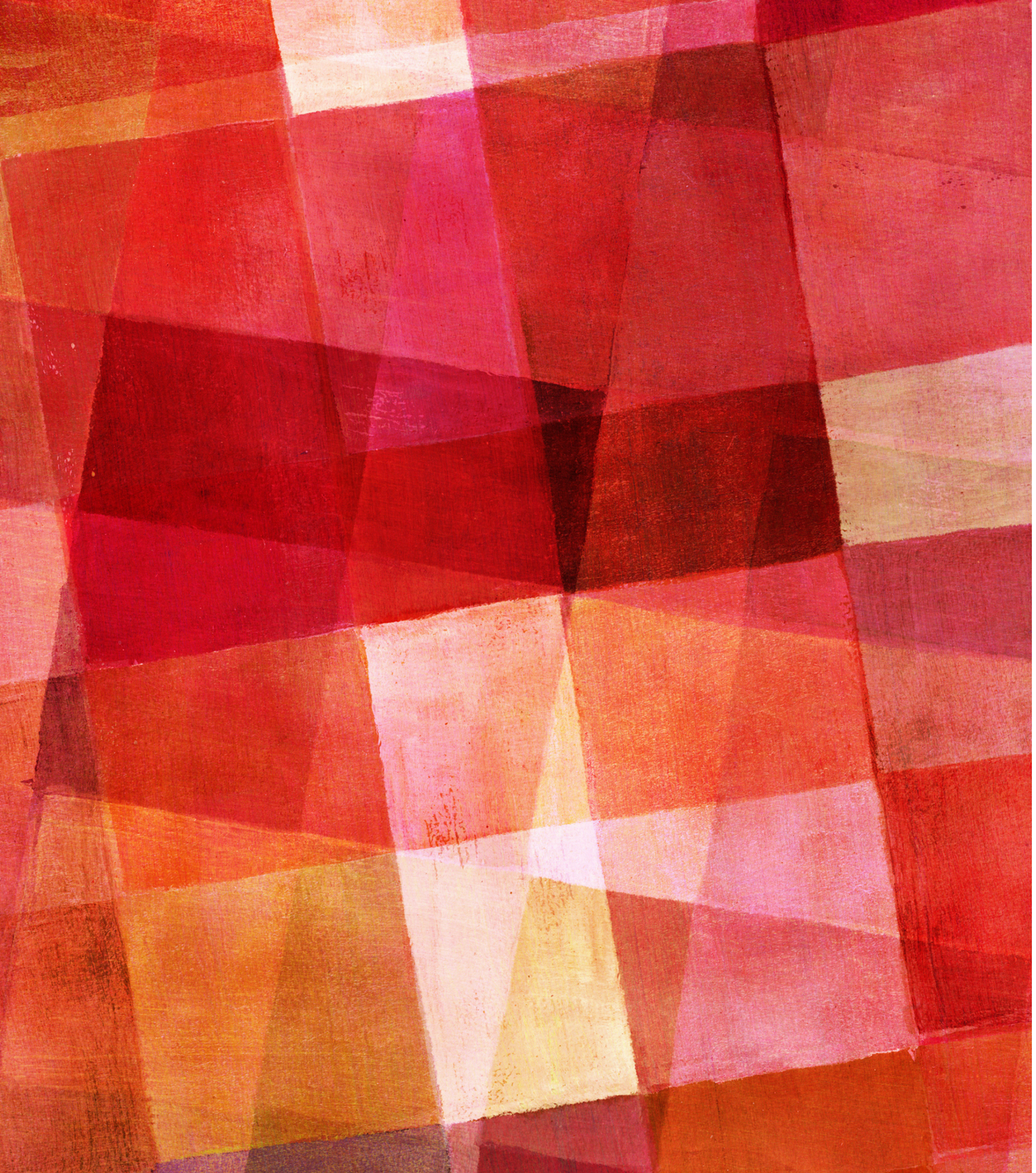
NUMBERS

- Integer
  - Whole Numbers
- Float
  - Decimal Numbers
- Can do mathematical operations on it.
- Add(+), Subtract(-), Divide(/), Remainder(%), Power(**)



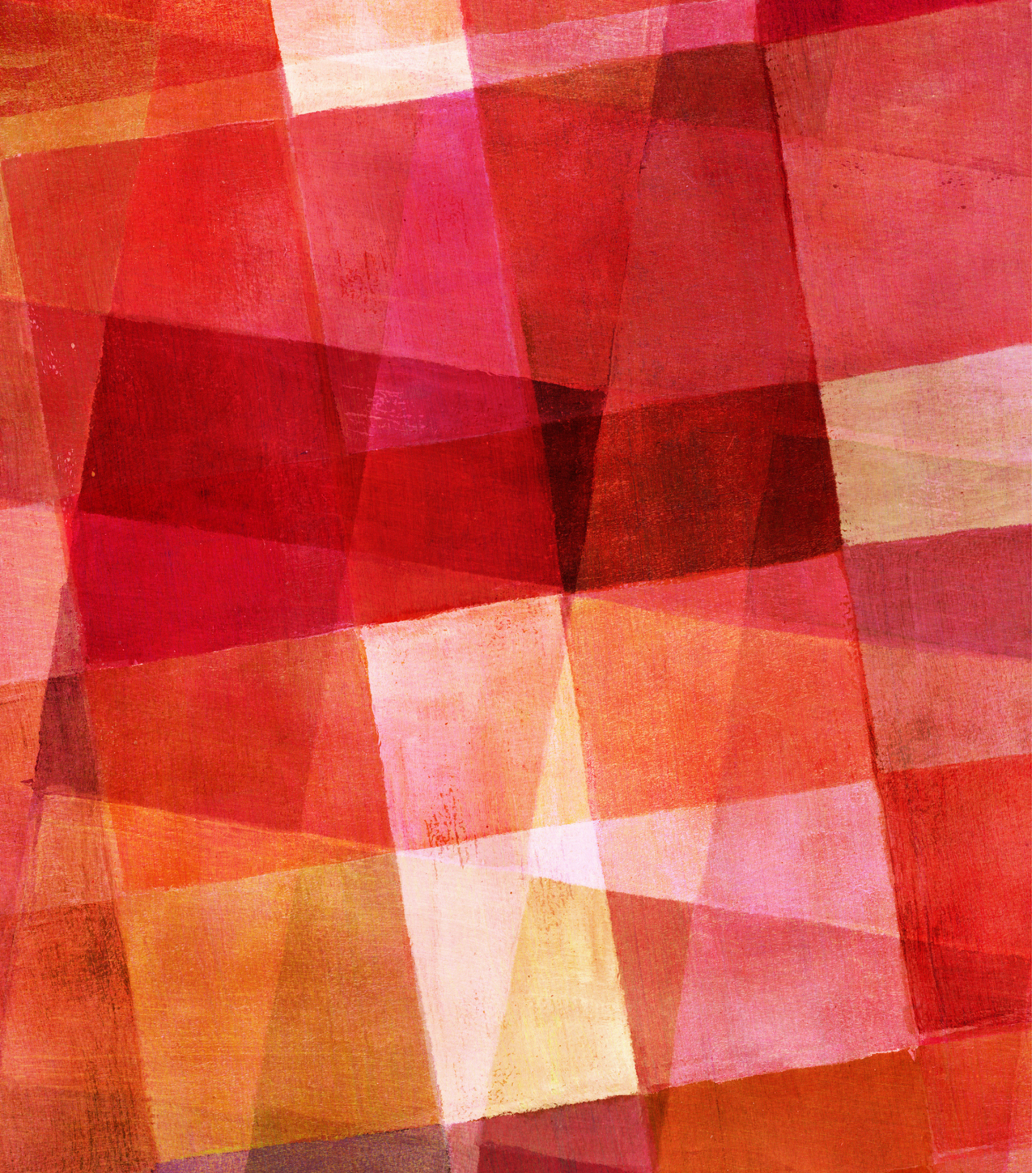
LISTS

- Collection of other data types like numbers, strings and even lists.
- Defined as
  - var_list =[] # empty list
  - var_list =[2, 4, 5]
- You can access elements of lists just like strings
  - Using index in []
  - var_list[2] will return 4
- Adding elements use append.
- Removing elements use remove
- Insert elements use insert



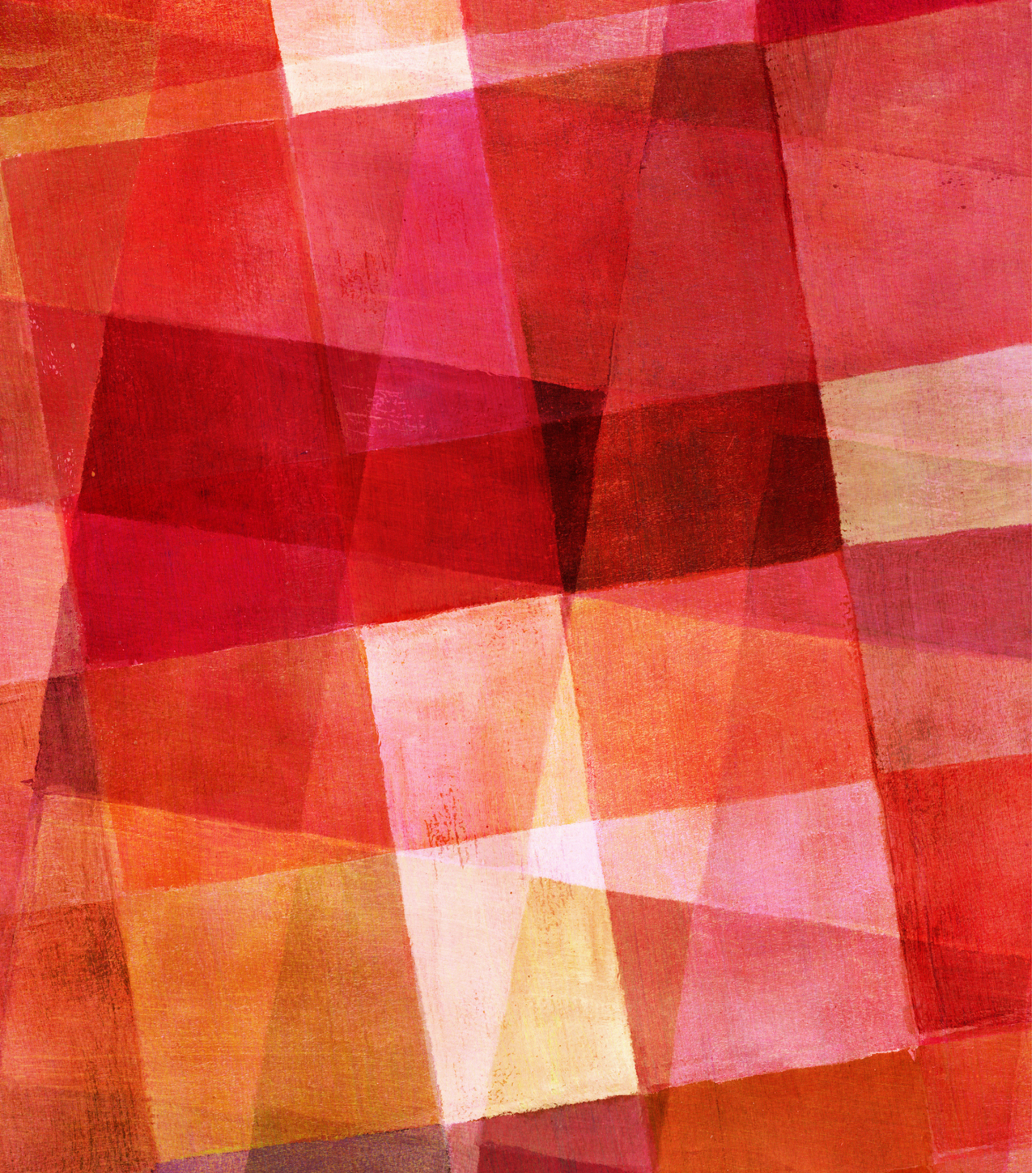
WHATS BRACKETS TO USE WHEN

- Generally [] are used to define lists or access elements / characters with index.
- Use () when we have functions.
- Functions are lines of code that’s already defined for you like tools.
  - For example, len(), type(), print().



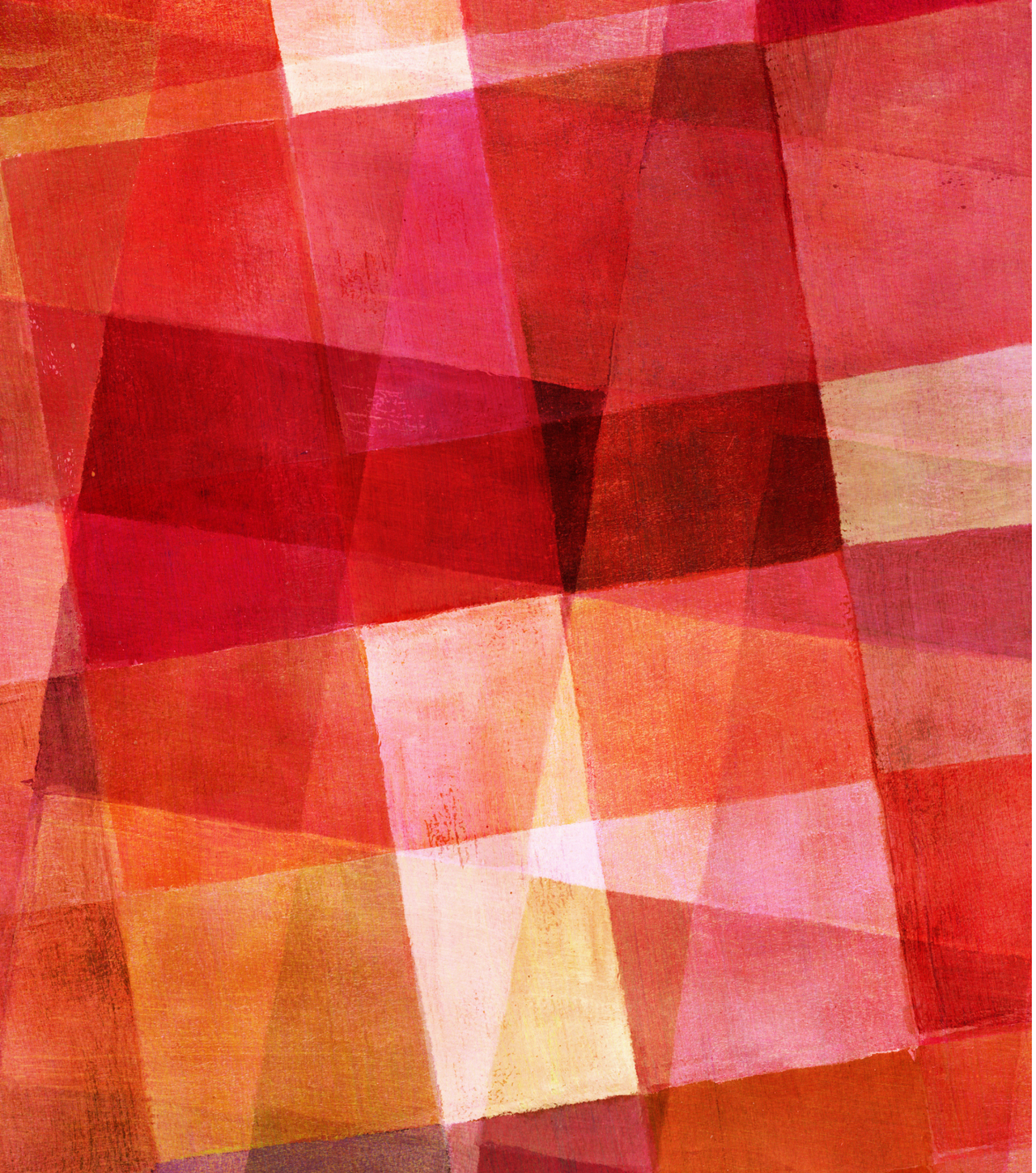
INPUT FUNCTION

- Input function takes a value from the user, generally its used to store an input from the user to a variable.
- Used like
  - var_input = input(“Enter your name: ”)
  - It will bring up a dialog to with title
    - Enter your name: Aman
    - Now var_input will be “Aman”
- Remember input always gives a string.
- If you want to convert it int use int()



BOOLEAN

- Data Type that has only two values True or False.
- Used generally in expressions.
  - Comp = 3< 5 will have value True
- Boolean Comparions.
  - V1 == V2 is used comparing two values.
  - V1 != V2 will tell you if V1 is not equal to V2.
  - < Less than
  - > Grater than



CONTROL STATEMENT –IF AND ELSE

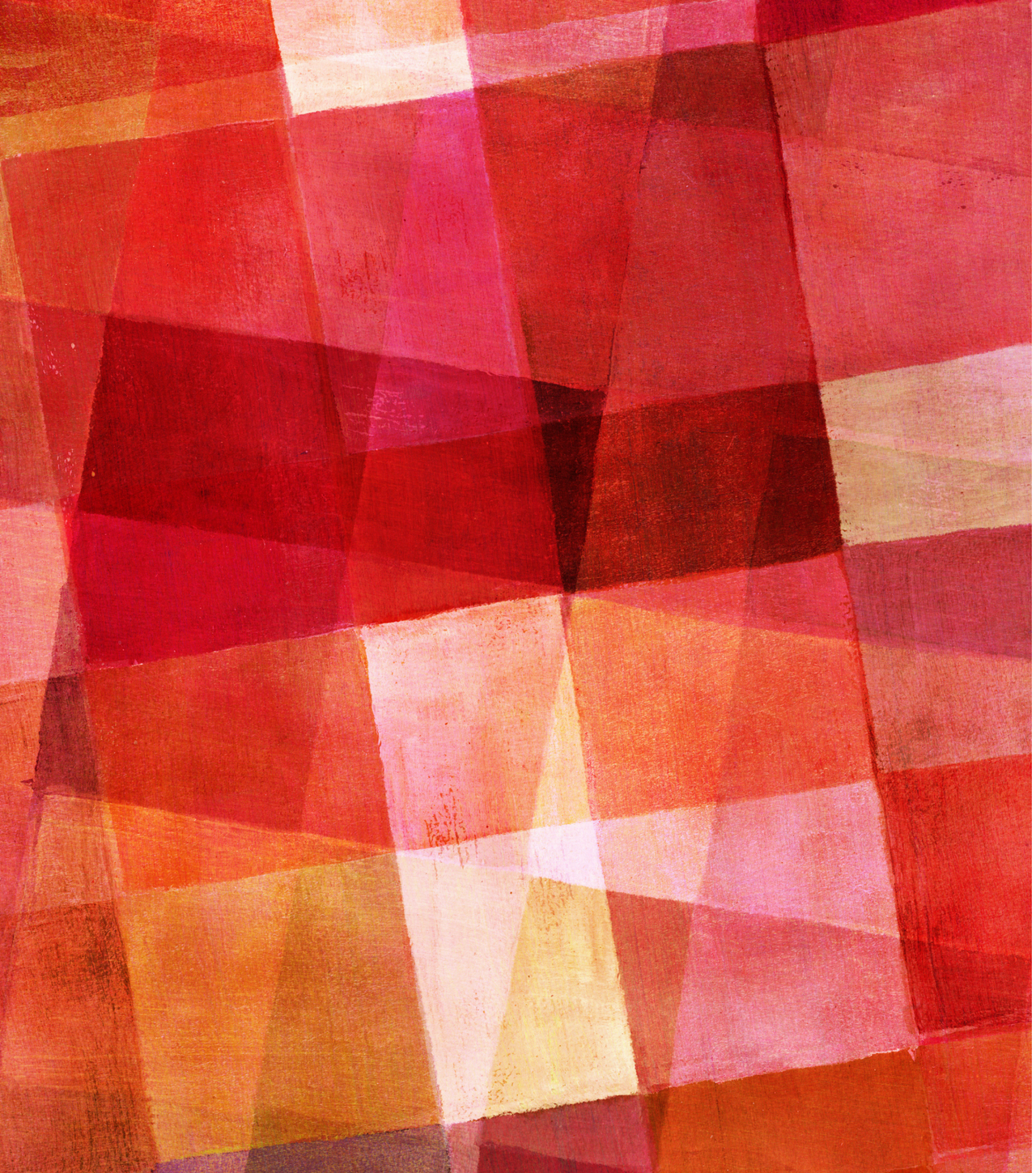
- Indentation is very important for if and else
- If uses boolean expression
- Example:

if statement is True:

do something
elif another_statement is True: # else if

do something else else:

do another thing



FOR / WHILE LOOP

For something in List: keep doing something

While (condition is True) : keep doing something