Name:
Year 10 Interleaved Homework 4

This task is not about how much you can remember, it may require you to use the course website to help you answer some questions.

Use this QR code to visit the course website.

1. Look at the following data sizes and put them in order from largest (1) to smallest (4)

		Order (1-4)
0.35GB	350	3
0.0045TB	4.5	4
65000MB	65000	2
0.003PB	3000000	1

2. Convert 4B from hexadecimal to binary. Show all your working out.

4 = 0100
B = 11 = 1011
01001011

3. Convert 20,000 Bytes into MB. Show all your working out.

20000 / 1000 = 20KB
20 / 1000 = 0.02MB

4. If the denary value for the letter F is 6, what is the denary value for the letter M?

13

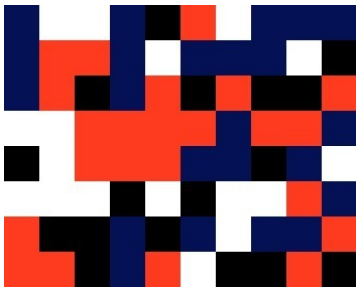
5. Convert 01001010 from binary to Hexadecimal. Show all your working out.

0100 = 4
1010 = 9
0x49

6. Convert 78 from hexadecimal to denary. Show all your working out

7*16 = 42+70 = 112
112 + 8 = 120
0x78 = 120

7. Here is a bitmap image:



a. What is the colour depth of the above image? – Remember to use the course website to look this up.

4 colours, 8p height, 10 p length
4*8*10 = 320 bits

b. Explain how you know your answer for 8a is correct.

I think I did already

8. A teacher wants a programme that will allow them to enter the results of three tests the students sit and tell them if they have passed or need to re-sit the test.

Your task is to write a Python program that serves the teachers purpose based on the following criteria:

- Prompt the teacher to input the result of the three tests.

- Calculate the student's average score
    - If a student scores more than or equal to 50, they have passed
    - If a student scores less than 50 they need to re-sit the test
    - If a student has scored more than 70, they should get a certificate

- why calculate the averages if you then say if the one student gets more than 70 then they should get a certificate. I'll give averages like the image below shows and the result for each student
- Output the result to the teacher

You should use indentation as appropriate, use meaningful variable name(s), and apply Python syntax in your answer.

```
test1 = int(input("Enter the first result: "))
print("passed")
test3 = int(input("Enter the third result: "))
test2 = int(input("Enter the second result: "))
average = (test1 + test2 + test3) / 3
print("re-sit the tests")
if average < 50:
elif average > 70:
print("certificate")
else:
```

```
scores = []
while True:
    score = input("Enter student score (type 'continue' if no more to add or 'exit' to quit the program)")
    try:
        score = int(score)
    except:
        if score.lower() == "exit":
            print("Exiting")
            break
        elif score.lower() != "continue":
            print("You have entered a string which isnt continue nor exit, please enter a score or the word continue.")
            continue
    if type(score) == int:
        scores.append(score)
    else:
        if len(scores) < 1:
            print("Must input at least 1 score")
            continue
        total = 0
        student = 1
        for i in scores:
            total += i
            if i > 70:
                print(f"Student {student} gets a certificate")
            elif i < 50:
                print(f"Student {student} needs to re-sit the test")
            else:
                print(f"Student {student} has passed.")
            student+=1
        average = total / len(scores)
        if average > 70:
            print(f"Average says get a certificate")
        elif average < 50:
            print(f"Average says need to re-sit the test")
        else:
            print(f"Average is passed.")
```