LESSON_10 While Loops + Conditions

OBJECTIVES

Students will be able to:

- Use While loops with one condition or more
- Visualize the execution of a While loop (frame by frame)

STANDARDS

• 7-8.CT.7, 7-8.CT.8, 7-8.CT.9

WARM-UP (REVIEW HOMEWORK)

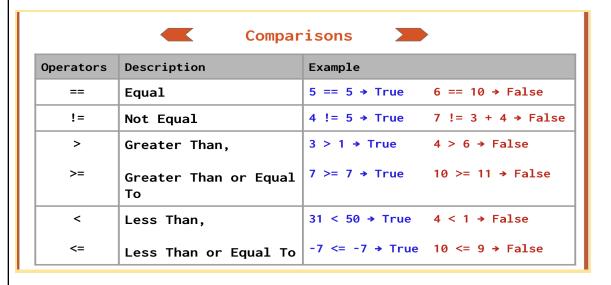
```
Write a while loop that produces the following output:

1
2
4
8
```

```
count =1
▼ while (count<9):
    print (count)
    count = count * 2</pre>
```

Sample Solution

LESSON DEVELOPMENT _WHILE Loops & Conditions (WHOLE GROUP)



More Than One Condition

Operators	Description	Examples
and	TRUE only when <u>ALL</u> conditions are "TRUE"	<pre>5 > 3 and 4 < 5 → True 2 > 1 and 3 < 1 → False</pre>
or	TRUE when <u>AT LEAST ONE</u> condition is "TRUE"	4 == 4 or 3 == 2 → True
not	TRUE when "FALSE"	Not 3 > 2 → False Not 10 < 20 → False Not 28 < 9 → True

LIVE CODE _CODE ALONG

- 1. Write a program that asks the user to guess your magic number
- 2. The number should initially be set to 7
- 3. It keeps asking them for the number until they get it correct.
- 4. For the correct number it should say "Correct! You got it...."
- 5. And then it ends program

6.

Let's visualize it

Big Idea

- We can use While Loops with one or more conditions
- <u>Visualize</u> Execution (frame by frame)