Task 1:

Variable	Value
i	0
inventory [i]	"apple"
inventoryCount[i]	10
Console Output	apple: 10
i	1
inventory [i]	"banana"
inventoryCount[i]	15
Console Output	banana: 15
i	2
inventory [i]	"cherry"
inventoryCount[i]	5
Console Output	cherry: 5
i	3
inventory [i]	"date"
inventoryCount[i]	20
Console Output	date: 20
i	4
inventory [i]	"elderberry"
inventoryCount[i]	7
Console Output	elderberry: 7

Output:

apple: 10

banana: 15

cherry: 5

date: 20

elderberry: 7

Task 2:

Variable	Value
i	0
j	1
words[i]	"zebra"
words[j]	"apple"
Swap?	Yes
Updated Array	**["apple", "zebra", "mango", "cherry", "banana"]**
j	2
words[i]	"apple"
words[j]	"mango"
Swap?	No
j	3
words[i]	"apple"
words[j]	"cherry"
Swap?	No
j	4
words[i]	"apple"
words[j]	"banana"
Swap?	No
i	1
j	2
words[i]	"zebra"
words[j]	"mango"
Swap?	Yes
Updated Array	**["apple", "mango", "zebra", "cherry", "banana"]**
j	3
words[i]	"mango"
words[j]	"cherry"
Swap?	Yes
Updated Array	**["apple", "cherry", "zebra", "mango", "banana"]**
j	4
words[i]	"cherry"
words[j]	"banana"
Swap?	Yes
Updated Array	**["apple", "banana", "zebra", "mango", "cherry"]**
i	2
j	3

words[i]	"zebra"
words[j]	"mango"
Swap?	Yes
Updated Array	**["apple", "banana", "mango", "zebra", "cherry"]**
j	4
words[i]	"mango"
words[j]	"cherry"
Swap?	Yes
Updated Array	**["apple", "banana", "cherry", "zebra", "mango"]**
i	3
j	4
words[i]	"zebra"
words[j]	"mango"
Swap?	Yes
Updated Array	**["apple", "banana", "cherry", "mango", "zebra"]**

Output:

["apple", "banana", "cherry", "mango", "zebra"]

Task 3:

Variable	Value
uniqueNumbers	[] (empty array)
randomNumber	5
Exists?	No
Updated Array	**[5]**
randomNumber	12
Exists?	No
Updated Array	**[5,12]**
randomNumber	8
Exists?	No
Updated Array	**[5, 12, 8]**
randomNumber	5
Exists?	Yes
Updated Array	**[5, 12, 8] (No change)**
randomNumber	19
Exists?	No
Updated Array	**[5, 12, 8, 19]**

randomNumber	1
Exists?	No
Updated Array	**[5, 12, 8, 19, 1]**
randomNumber	14
Exists?	No
Updated Array	**[5, 12, 8, 19, 1, 14]**
randomNumber	3
Exists?	No
Updated Array	**[5, 12, 8, 19, 1, 14, 3]**
randomNumber	10
Exists?	No
Updated Array	**[5, 12, 8, 19, 1, 14, 3, 10]**
randomNumber	7
Exists?	No
Updated Array	**[5, 12, 8, 19, 1, 14, 3, 10, 7]**
randomNumber	20
Exists?	No
Updated Array	**[5, 12, 8, 19, 1, 14, 3, 10, 7, 20] (loop stops)**

Output:

[5, 12, 8, 19, 1, 14, 3, 10, 7, 20]

Task 4:

Variable	Value
sideA	7
sideB	10
sideC	5
Condition 1 (sideA + sideB > sideC)	7 + 10 > 5 → 17 > 5 → True
Condition 2 (sideB + sideC > sideA)	10 + 5 > 7 → 15 > 7 → True
Condition 3 (sideA + sideC > sideB)	7 + 5 > 10 → 12 > 10 → True
Final Condition	True && True && True → True
Output	**"The sides 7, 10, and 5 form a valid triangle."**