

## ISE 232 HW #1

1. Write a function that checks if two numbers are relatively prime or not. If they are, it should return 1 and 0 otherwise.

**Note:** If you do not know meaning of relatively prime **google it!!!!**

2. Write a function that takes an array and returns **indexes** of its negative elements

**Example:**

Input array:

2	3	-4	1	-2	6	-5
---	---	----	---	----	---	----

Output:

3	5	7
---	---	---

3. Write a function that adds a row of a matrix onto another row. The matrix and the two row indexes should be provided by the user. The row pointed by the first index should be added onto the one pointed by the second index. Your code should work with matrices of arbitrary sizes.

**Example:**

Input matrix:

1	3	5
8	-1	6
7	9	7
4	4	2

Row indexes provided by the user: 2,4

Result that should be returned

1	3	5
8	-1	6
7	9	7
12	3	8

4. Write a function that takes an array and returns 1 if the following condition is satisfied by the array. Otherwise, it should return 0.

**Condition:** For all consecutive elements, one of them must be divisible by the other.

**Example:**

4	12	3	18	6	3
---	----	---	----	---	---

For the array given above result is 1

5	15	30	4	2	16	8
---	----	----	---	---	----	---

For the array given above result is 0

5. Write a function that takes an array and returns its first two smallest elements.

**Example:**

Input:

5	2	30	4	21	16	8
---	---	----	---	----	----	---

Return values: 2, 4

6. Given scripts scr1, scr2 and scr3 below, find outputs printed by echos when the following lines are executed on the comment prompt.

>> a=5

>> scr1

>> scr2

>> a=-1;

>> scr3

scr1	scr2	scr3
a = 4; b = -3 c = 0;  c = (-2)*b + b*a c b = a*2 - b; b a = a + 2*b - c	a = 10; x = b - a y = x*a-b; x y  b= x*a-y*b a b	c = 2*b + a; c = c + a  a = b + x + y b = x + y + c x = y + c + a y = c + a + b

7. Given functions func1, func2 and func3 below, find outputs printed by echos when the following line is executed on the comment prompt.

>> [x,y,z] = func1(1,1,-1);

```
function [z,x,y] =  
func1(y,z,x)
```

```
x = 2*x - z;  
y = z + y + x;  
z = 2*y + z  
x  
y  
x=y+z
```

```
[z,y,x] = func2(x,y,z)
```

```
function [y,z,t] =  
func2(z,x,y)
```

```
z = y + 2*x;  
y = x - y + 12  
t = x + y + z;  
z  
x = x - 2  
t  
[t,y,z] = func3(y,z,x)
```

```
function [z,y,x]=  
func3(x,y,z)
```

```
y = x - 2*z  
x = x + z;  
z = 2*x - 12  
x
```