

## Question One

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```
#include <stdio.h>

int main()

{
    // declare sum,x;
    int sum,x;
    // initialize sum,x to 0,1 respectively.
    x=1;
    sum=0;
    // increment sum by x
    sum+= x;
    // print
    printf("The sum is %d", sum);

    return 0;
}
```

## Question two

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The code:

```
while ( z >= 0 )
sum += z;
```

Has two semantic errors in it. Viz:

1. The loop has no proper way of reaching completion as z will always be greater than 100, leading to an infinite loop.
2. This is because z never decreases so we're actually calculating a running sum of 100s.

## Question three

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Pseudocode for a

```
1. start
2. let n1,n2
3. enter n1 and n2
4. sum = n1 + n2
5. print "the sum is " sum
6. end
```

## Pseudocode for b

```
1. start
2. let n1, n2 and x
3. enter n1 and n2
4. if n1 > n2 , skip to line 8
5. if n2 > n1 , skip to line 10
6. x = "neither of the two is greater, the numbers are equal"
7. skip to line 11
8. x = n1
9. skip to line 11
10. x = n2
11. print x
12. end
```

## pseudocode for c

```
1. start
2. let x, sum
3. sum = 0
4. enter x
5. if x >= 1, skip to line 9
6. if x = -1 , skip to line 11
7. if x < 1 , print You can only enter positive numbers
8. return to line 4
9. sum = sum + x
10. return to line 4
11. print sum
12. end
```