Digital assignment 2

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First question:

Get the three angles of a triangle as input.

find the count of the type of the triangle.
Continue the process for 5 times.
If the sum of the three angles is greater than 180 then prompt for correct values. (the sum of all internal angles of a triangle is always equal to 180°). Keep the count of the wrong entries also.
Acute Angled Triangle (all three angles less than 90°)
Right-Angled Triangle (one angle that measures exactly 90°)
Obtuse Angled Triangle (one angle that measures more than 90°)
Sample i/p:
60
70
50
40
50
90
40
40
100
30

30
120
90
60
30
Sample o/p:
Acute Angled Triangle: 1
Right Angled Triangle: 2
Obtuse Angled Triangle: 2
Wrong Entries: 0
Second Sample i/p:
60
70
50
40
50
90
40
40
100
30
30
120
90
90
30
Wrong Entry try again
90
30

60

Sample o/p:

Wrong Entry try again

Acute Angled Triangle: 1

Right Angled Triangle: 2

Obtuse Angled Triangle: 2

Wrong Entries: 1

Answer:

```
#include <stdio.h>
int main() {
int i, j, a, b, c, sum, acute = 0, right = 0, obtuse = 0,
wrong = 0;
   for (i = 1; i <= 5; i++) {
      printf("Enter the three angles of triangle
%d:\n",i);
      scanf("%d %d %d", &a, &b, &c);
      sum = a + b + c;
      if (sum > 180) {
         printf("Wrong Entry try again\n");
         wrong++;
         i--;
         continue;
      }
      if (a < b) {
         j = a;
   a = b;
         b = j;
      }
```

```
        if (a < c) {
            j = a;
            a = c;
            c = j;
        }
        if (a*a == b*b + c*c) {
            printf("Right-Angled Triangle\n");
            right++;
        } else if (a*a < b*b + c*c) {
            printf("Acute Angled Triangle\n");
            acute++;
        } else {
            printf("Obtuse Angled Triangle\n");
            obtuse++;
        }
    }
    printf("\nAcute Angled Triangle: %d\n", acute);
    printf("Right Angled Triangle: %d\n", right);
    printf("Obtuse Angled Triangle: %d\n", obtuse);
    printf("Wrong Entries: %d\n", wrong);
    return 0;
}
```