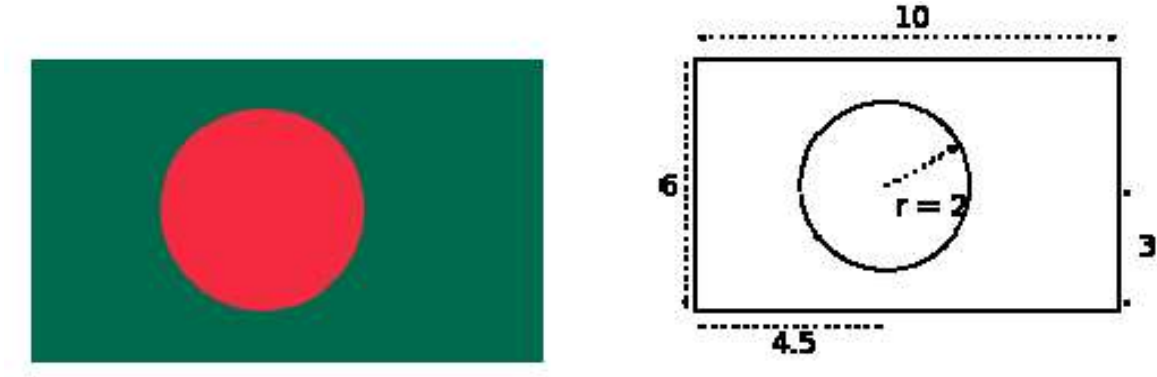The national flag of Bangladesh is bottle green in color and rectangular in size with the **length** (L) to **width** ratio of 10:6. It bears a red circle on the background of green. It maintains the **length** (L) to **radius** ratio of 5:1 (If the **length** is 10 then **width** should be 6 and **radius** should be 2). The color in the background represents the greenery of Bangladesh while the red circle symbolizes the rising sun and the sacrifice of lives in our freedom fight.

Input

First line of input will contain the number of test cases, $T \leq 100$. Then there follows T lines, each containing a positive integer $L \leq 1000$, representing length of the flag.

Output

For each test case output is a line with two space separated real numbers containing exactly two digits after decimal point. Two numbers represent the area of red and green portion respectively.

Note: Pi is considered to be arccos(-1).

Sample Input

```
1
10
```

Sample Output

```
12.57 47.43
```