```
#include <stdio.h>
int p, q, r, s;

double f(double x){
    return p * x * x * x + q * x * x + r * x + s;
}

int main(){
    int a, b, n;
    scanf("%d %d %d %d %d %d %d", &p, &q, &r, &s, &a, &b, &n);
    double delta = (b - a)/(double)n;
    double area = 0.0;

for(int i = 0; i < n; i++)
    area += (f((double)a + i * delta) + f((double)a + (i+1) * delta))*delta/2;
    printf("%0.41f", area);
    return 0;
}</pre>
```