

Problem: Find the midpoint of a given line.

Sample:

Input	Output
2/1 2/1 6/1 6/1 0/1 5/2 0/1 3/2	4/1 4/1 0/1 4/2 (no need to show in reduced format)

Steps:

1. Define a structure `Fraction` with two attribute **NUMERATOR** and **DENOMINATOR**.
2. Define a function `Fraction addFraction(Fraction a, Fraction b)` that will return another fraction that is sum of fraction a and fraction b.
3. Define a function `Fraction divFraction(Fraction a, int n)` that will return a fraction after dividing by n.
4. Define a structure `Point` with two attribute x & y, where both are `Fraction`.
5. Define a structure `Line` with two attribute start & end, where both are `Point`.
6. Define a function `Point midPoint(Line p)` that will return mid point of the line p. Use the functions you defined in step 2 & 3.
7. **Bonus:** Take the input from a file and write the output in another file.

```
// following code reads an integer from "in.txt" and write it  
// in file out.txt.  
  
FILE *fpr = fopen("in.txt", "r");  
FILE *fpw = fopen("out.txt", "w");  
int n;  
fscanf(fpr, "%d", &n);  
fprintf(fpw, "%d", n);
```

8.