

```
1
2 public class calculate {
3     //create variables
4     char letterGrade;
5     private static float avg;
6     private static float ppl;
7     private static float topScore;
8     private static float total;
9     private float percent;
10    private float pointsEarned, pointsTotal;
11
12    //increment counter for each person calculated
13    calculate(float points, float total){
14        ppl++;
15        pointsEarned = points;
16        pointsTotal = total;
17        percentage();
18        getGrade();
19    }
20
21    //calculate the decimal percentage of the score inputted
22    private void percentage(){
23        //get decimal percentage of the score
24        percent = pointsEarned/pointsTotal;
25        total += percent;
26        if (percent > topScore){
27            topScore = percent;
28        }
29        avg = total / ppl;
30    }
31
32    //based off of the first character in the
33    private void getGrade(){
34        String percentString = Float.toString(percent);
35        char firstDigit = percentString.charAt(2);
36        // System.out.println(firstDigit);
37        //determine grades based off the 2nd character in the percent string
38        switch(firstDigit){
39            case '9':
40                letterGrade = 'A';
41                break;
42            case '8':
43                letterGrade = 'B';
44                break;
45            case '7':
46                letterGrade = 'C';
47                break;
48            case '6':
49                letterGrade = 'D';
50                break;
51            case '5':
52                letterGrade = 'F';
53                break;
54            case '4':
55                letterGrade = 'F';
56                break;
57            case '3':
```

```
58         letterGrade = 'F';
59         break;
60     case '2':
61         letterGrade = 'F';
62         break;
63     case '1':
64         letterGrade = 'F';
65         break;
66     case '0':
67         letterGrade = 'F';
68     }
69 }
70
71 public float getAvg(){
72     return avg;
73 }
74
75 public float getTotal(){
76     return total;
77 }
78
79 public float getTopScore(){
80     //topscore starts at 0, and as scores are calculated that are higher than 0, those
become the new top score
81     return topScore;
82 }
83
84 public float getPercent(){
85     return percent;
86 }
87
88 public char getLetterGrade(){
89     return letterGrade;
90 }
91
92 }
93
```