The following program segments attempt to calculate a fee based on the number of passengers according to the schedule given in the table. Determine which segments (if any) correctly compute the value.

<table>
<thead>
<tr>
<th>Passengers</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2</td>
<td>$100</td>
</tr>
<tr>
<td>2 ± 10</td>
<td>$300</td>
</tr>
<tr>
<td>11 ± 20</td>
<td>$500</td>
</tr>
<tr>
<td>&gt; 20</td>
<td>$1000</td>
</tr>
</tbody>
</table>

---

```
fee = 100.0;
if (passengers > 20)
fee = 1000.0;
if (passengers > 10)
fee = 500.0;
if (passengers >= 2)
fee = 300.0;
```

---

```
fee = 100.0;
if (passengers >= 2)
fee = fee + 200.0;
if (passengers > 10)
fee = fee + 400.0;
if (passengers > 20)
fee = fee + 900.0;
```

---

```
fee = 100.0;
if (passengers >= 2)
    if (passengers >= 10)
        if (passengers >= 20)
            fee = fee + 900.0;
        else
            fee = fee + 400.0;
    else
        fee = fee + 200.0;
```

---

```
fee = 1000;
if (2 <= passengers && passengers <= 10)
fee = 300.0;
else if (10 < passengers && passengers <= 20)
fee = 500.0;
else fee = 1000.0;
```

---

Correctly compute the value given in the table. Determine which segments (if any) based on the number of passengers according to the schedule.

The following program segments attempt to calculate a fee.
```c
#include <stdio.h>

int main(void)
{
    double x, y;
    int q;
    scanf("%lf %lf", &x, &y);

    /*-------------------------------*/
    /* First Method: Straight if-else-else */
    if (x == 0 || y == 0) q = 0;
    else if (x > 0 && y > 0) q = 1;
    else if (x > 0 && y < 0) q = 4;
    else if (x < 0 && y > 0) q = 2;
    else if (x < 0 && y < 0) q = 3;
    printf("First Method: ");
    if (q == 0) printf("On an axis\n");
    else printf("Quadrant %i\n", q);
    /*-------------------------------*/
    /* Second Method: Nested if-else */
    if (x == 0 || y == 0) q = 0;
    else if (x > 0) {
        if (y > 0) q = 1;
        else if (y < 0) q = 4;
    }
    else if (x < 0) {
        if (y > 0) q = 2;
        else if (y < 0) q = 3;
    }
    printf("Second Method: ");
    if (q == 0) printf("On an axis\n");
    else printf("Quadrant %i\n", q);
    /*-------------------------------*/
    /* Third Method: Shortened version */
    if (x == 0 || y == 0) q = 0;
    else if (x > 0) {
        if (y > 0) q = 1;
        else q = 4;
    }
    else {
        if (y > 0) q = 2;
        else q = 3;
    }
    printf("Third Method: ");
    if (q == 0) printf("On an axis\n");
    else printf("Quadrant %i\n", q);
    return 0;
}
```

The output from running the program for different inputs is as follows:

- For input `1 2`:
  - First Method: Quadrant 1
  - Second Method: Quadrant 1
  - Third Method: Quadrant 1

- For input `-1 3`:
  - First Method: Quadrant 2
  - Second Method: Quadrant 2
  - Third Method: Quadrant 2

- For input `3 -2`:
  - First Method: Quadrant 4
  - Second Method: Quadrant 4
  - Third Method: Quadrant 4

- For input `-1 -4`:
  - First Method: Quadrant 3
  - Second Method: Quadrant 3
  - Third Method: Quadrant 3

- For input `0 4`:
  - First Method: On an axis
  - Second Method: On an axis
  - Third Method: On an axis

- For input `-2 0`:
  - First Method: On an axis
  - Second Method: On an axis
  - Third Method: On an axis

- For input `0 0`:
  - First Method: On an axis
  - Second Method: On an axis
  - Third Method: On an axis