

Sample output from my solution to problem #1 (your should match the format: the times depend on your machine's speed).

Priority Queue of size 10000

Analysis of 5 timings

avg = 0.333 min = 0.331 max = 0.335 span = 1.3%

Time Ranges

```
3.31e-01<>3.31e-01[ 40.0%]| *****
3.31e-01<>3.32e-01[  0.0%]|
3.32e-01<>3.32e-01[  0.0%]|
3.32e-01<>3.33e-01[  0.0%]|
3.33e-01<>3.33e-01[ 20.0%]| *****A
3.33e-01<>3.34e-01[  0.0%]|
3.34e-01<>3.34e-01[  0.0%]|
3.34e-01<>3.35e-01[  0.0%]|
3.35e-01<>3.35e-01[ 20.0%]| *****
3.35e-01<>3.35e-01[  0.0%]|
3.35e-01<>3.36e-01[ 20.0%]| *****
```

Priority Queue of size 20000

Analysis of 5 timings

avg = 0.390 min = 0.389 max = 0.391 span = 0.4%

Time Ranges

```
3.89e-01<>3.89e-01[ 20.0%]| *****
3.89e-01<>3.89e-01[  0.0%]|
3.89e-01<>3.89e-01[  0.0%]|
3.89e-01<>3.90e-01[  0.0%]|
3.90e-01<>3.90e-01[ 20.0%]| *****
3.90e-01<>3.90e-01[  0.0%]| A
3.90e-01<>3.90e-01[ 40.0%]| *****
3.90e-01<>3.90e-01[  0.0%]|
3.90e-01<>3.90e-01[  0.0%]|
3.90e-01<>3.91e-01[  0.0%]|
3.91e-01<>3.91e-01[ 20.0%]| *****
```

Priority Queue of size 40000

Analysis of 5 timings

avg = 0.433 min = 0.432 max = 0.435 span = 0.7%

Time Ranges

```
4.32e-01<>4.32e-01[ 20.0%]| *****
4.32e-01<>4.32e-01[ 40.0%]| *****
4.32e-01<>4.33e-01[  0.0%]|
4.33e-01<>4.33e-01[  0.0%]|
4.33e-01<>4.33e-01[  0.0%]| A
4.33e-01<>4.33e-01[  0.0%]|
4.33e-01<>4.34e-01[  0.0%]|
4.34e-01<>4.34e-01[ 20.0%]| *****
4.34e-01<>4.34e-01[  0.0%]|
4.34e-01<>4.35e-01[  0.0%]|
4.35e-01<>4.35e-01[ 20.0%]| *****
```

Priority Queue of size 80000

Analysis of 5 timings

avg = 0.469 min = 0.468 max = 0.470 span = 0.4%

Time Ranges

```

4.68e-01<>4.69e-01[ 20.0%]| *****
4.69e-01<>4.69e-01[  0.0%]|
4.69e-01<>4.69e-01[ 20.0%]| *****
4.69e-01<>4.69e-01[  0.0%]|
4.69e-01<>4.69e-01[  0.0%]| A
4.69e-01<>4.70e-01[ 20.0%]| *****
4.70e-01<>4.70e-01[ 20.0%]| *****
4.70e-01<>4.70e-01[  0.0%]|
4.70e-01<>4.70e-01[  0.0%]|
4.70e-01<>4.70e-01[  0.0%]|
4.70e-01<>4.70e-01[ 20.0%]| *****

```

Priority Queue of size 160000

Analysis of 5 timings

avg = 0.505 min = 0.504 max = 0.507 span = 0.6%

Time Ranges

```

5.04e-01<>5.04e-01[ 20.0%]| *****
5.04e-01<>5.04e-01[  0.0%]|
5.04e-01<>5.05e-01[ 20.0%]| *****
5.05e-01<>5.05e-01[ 20.0%]| *****
5.05e-01<>5.05e-01[  0.0%]|
5.05e-01<>5.06e-01[  0.0%]| A
5.06e-01<>5.06e-01[  0.0%]|
5.06e-01<>5.06e-01[  0.0%]|
5.06e-01<>5.07e-01[  0.0%]|
5.07e-01<>5.07e-01[ 20.0%]| *****
5.07e-01<>5.07e-01[ 20.0%]| *****

```

Priority Queue of size 320000

Analysis of 5 timings

avg = 0.540 min = 0.539 max = 0.541 span = 0.5%

Time Ranges

```

5.39e-01<>5.39e-01[ 20.0%]| *****
5.39e-01<>5.39e-01[  0.0%]|
5.39e-01<>5.39e-01[  0.0%]|
5.39e-01<>5.40e-01[ 20.0%]| *****
5.40e-01<>5.40e-01[  0.0%]|
5.40e-01<>5.40e-01[  0.0%]| A
5.40e-01<>5.41e-01[  0.0%]|
5.41e-01<>5.41e-01[ 40.0%]| *****
5.41e-01<>5.41e-01[  0.0%]|
5.41e-01<>5.41e-01[  0.0%]|
5.41e-01<>5.42e-01[ 20.0%]| *****

```

Priority Queue of size 640000

Analysis of 5 timings

avg = 0.573 min = 0.572 max = 0.574 span = 0.3%

Time Ranges

```

5.72e-01<>5.73e-01[ 20.0%]| *****
5.73e-01<>5.73e-01[  0.0%]|
5.73e-01<>5.73e-01[  0.0%]|
5.73e-01<>5.73e-01[  0.0%]|
5.73e-01<>5.73e-01[  0.0%]|

```

```

5.73e-01<>5.73e-01[ 40.0%] | *****A
5.73e-01<>5.74e-01[ 20.0%] | *****
5.74e-01<>5.74e-01[  0.0%] |
5.74e-01<>5.74e-01[  0.0%] |
5.74e-01<>5.74e-01[  0.0%] |
5.74e-01<>5.74e-01[ 20.0%] | *****

```

Priority Queue of size 1280000

Analysis of 5 timings

avg = 0.609 min = 0.607 max = 0.613 span = 1.0%

Time Ranges

```

6.07e-01<>6.07e-01[ 20.0%] | *****
6.07e-01<>6.08e-01[ 20.0%] | *****
6.08e-01<>6.08e-01[ 20.0%] | *****
6.08e-01<>6.09e-01[  0.0%] |
6.09e-01<>6.10e-01[  0.0%] | A
6.10e-01<>6.10e-01[  0.0%] |
6.10e-01<>6.11e-01[  0.0%] |
6.11e-01<>6.11e-01[  0.0%] |
6.11e-01<>6.12e-01[  0.0%] |
6.12e-01<>6.13e-01[ 20.0%] | *****
6.13e-01<>6.13e-01[ 20.0%] | *****

```

Priority Queue of size 2560000

Analysis of 5 timings

avg = 0.644 min = 0.640 max = 0.648 span = 1.3%

Time Ranges

```

6.40e-01<>6.41e-01[ 20.0%] | *****
6.41e-01<>6.42e-01[  0.0%] |
6.42e-01<>6.42e-01[  0.0%] |
6.42e-01<>6.43e-01[ 20.0%] | *****
6.43e-01<>6.44e-01[ 40.0%] | *****A
6.44e-01<>6.45e-01[  0.0%] |
6.45e-01<>6.46e-01[  0.0%] |
6.46e-01<>6.47e-01[  0.0%] |
6.47e-01<>6.47e-01[  0.0%] |
6.47e-01<>6.48e-01[  0.0%] |
6.48e-01<>6.49e-01[ 20.0%] | *****

```