Outside of Class

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block:\_\_\_\_\_\_\_

**Statistics Lesson 5: Grouped Continuous Data**

1. The diagram shows the cumulative frequency graph for the time *t* taken to perform a certain task by 2000 men.

 

(a) Use the diagram to estimate

(i) the median time;

(ii) the upper quartile and the lower quartile;

(iii) the interquartile range.

(4)

(b) Find the number of men who take **more than** 11 seconds to perform the task.

(3)

(c) 55 % of the men took less than *p* seconds to perform the task. Find *p*.

(2)

 The times taken for the 2000 men were grouped as shown in the table below.

|  |  |
| --- | --- |
| **Time** | **Frequency** |
| 5 ≤ *t* < 10 | 500 |
| 10 ≤ *t* < 15 | 850 |
| 15 ≤ *t* < 20 | *a* |
| 20 ≤ *t* < 25 | *b* |

(d) Write down the value of

(i) *a*;

(ii) *b.*

(2)

(e) Use your graphic display calculator to find an estimate of the mean time.

(2)