| Question      | Scheme   | Marks       |
|---------------|--|-------------|
| 2(a)          | $2(x+1) < 5x - 2 \Rightarrow 2x + 2 < 5x - 2 \Rightarrow 3x > 4 \Rightarrow x > \frac{4}{3}$ | M1A1<br>[2] |
| (b)           | $3x^2 - x - 10 = 0 \Rightarrow (3x + 5)(x - 2) = 0 \Rightarrow x = -\frac{5}{3}, 2$          | M1          |
|               | $-\frac{5}{3} \le x \le 2$ allow $-\frac{5}{3} \le x \le 2$                                  | dM1         |
|               | $-\frac{5}{3} \leqslant x \leqslant 2$   | A1<br>[3]   |
| (c)           | $\frac{4}{3}$ < $x \le 2$  | B1ft<br>[1] |
| Total 6 marks |  |             |

| Part | Mark       | Notes  |  |  |  |
|------|------------|--|--|--|--|
| (a)  | M1         | Attempts to solve the inequality with no more than one arithmetical                                      |  |  |  |
|      |            | error.   |  |  |  |
|      | A1         | For the correct inequality.  |  |  |  |
| (b)  | M1         | For attempting to solve the QE to find <b>two</b> critical values.                                       |  |  |  |
|      | For the d  | For the dM and A marks allow any acceptable notation.  |  |  |  |
|      | For exam   | tample; $-\frac{5}{3} \leqslant x \cap x \leqslant 2$ or, $-\frac{5}{3} \leqslant x$ and $x \leqslant 2$ |  |  |  |
|      | The region | on must however indicate an INSIDE region  |  |  |  |
|      | dM1        | Forms an inside region with <b>their</b> cv's  |  |  |  |
|      |            | This mark is dependent on the first M mark in (b)  |  |  |  |
|      | A1         | For the correct region with the correct inequalities.  |  |  |  |
| (c)  | B1ft       | For the correct combined inside region.  |  |  |  |
|      |            | Penalise the incorrect inequality from part (b) $<$ in place of $\le$ only                               |  |  |  |
|      |            | once.  |  |  |  |
|      |            | Even if the <b>correct</b> inequality does not follow from their work, award this mark.                  |  |  |  |