| | | | | | |
|---|---|---|---|---|---|
| **9** (a) | | | 2 | M1 | for $(x \pm 6)(x \pm 7)$ |
| | | $(x + 6)(x - 7)$ | | A1 | for $(x + 6)(x - 7)$ or $(x - 7)(x + 6)$<br>isw roots given if candidate solves the quadratic = 0 |
| (b) | $3x - 8x < 3 - 15$ or $15 - 3 < 8x - 3x$ | | 3 | M1 | accept as equation or with the wrong inequality sign. |
| | $-5x < -12$ or $12 < 5x$ | | | M1 | accept as equation or with the wrong inequality sign. |
| | | $x > 2.4$ | | A1 | Accept $2.4 < x$ or $x > \frac{12}{5}$ oe<br>allow $(-\infty, 2.4)$<br><br>award M1 M1 A0 for 2.4 with = sign or no inequality or incorrect inequality sign. |
| | | | | | **Total 5 marks** |

| | | | | | |
|---|---|---|---|---|---|
| **10** (a) | | 0 | 1 | B1 | condone $150^0$ |
| (b) | | $-2$ | 1 | B1 | condone $3^{-2}$ |
| | | | | | **Total 2 marks** |

| | | | | | |
|---|---|---|---|---|---|
| **11** | See appendix 1 | | 3 | M1 | for $y = x$ correctly drawn<br>solid or dashed line accepted |
| | | | | M1 | indep for $x = 4$ **and** $y = -2$ correctly drawn<br>solid or dashed line accepted |
| | | Correct region identified | | A1 | for correct region identified<br>region may be shaded or left unshaded<br>Condone missing label if region is clear and no contradictory labels |
| | | | | | **Total 3 marks** |