## Answer all ELEVEN questions.

| Write your answers in the spaces provided.   |                 |                   |                  |                 |                    |             |  |
|--|-----------------|-------------------|------------------|-----------------|--------------------|-------------|--|
| You must write down all the stages in your working.                                |                 |                   |                  |                 |                    |             |  |
| 1 The equation $kx^2 + 8x + 3k = 0$ where k is a constant, has real unequal roots. |                 |                   |                  |                 |                    |             |  |
|  | Find the set of | values of k givin | ng your answer i | n an exact simp | plified form.      | (5)         |  |
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|  |                 |                   |                  | (Tot            | tal for Question 1 | is 5 marks) |  |

