

Question Number	Scheme	Marks
2	<p>expand and re-arrange to achieve 3TQ</p> $\Rightarrow 4x^2 - 19x + 12 > 0$ $\Rightarrow (4x - 3)(x - 4) > 0 \Rightarrow \text{correct cvs } x = \frac{3}{4}, x = 4$ $\Rightarrow x < \frac{3}{4}, x > 4 \Rightarrow x < \frac{3}{4} \text{ OR } x > 4 \text{ (Outside region)}$ <p>Or any equivalent notation eg., $\left(-\infty, \frac{3}{4}\right) \cup (4, \infty)$</p>	<p>M1</p> <p>M1A1</p> <p>M1A1</p> <p>(5)</p>

Notes

M1 for attempting to expand the bracket and collecting up like terms to achieve a 3TQ
Can have > 0 , $= 0 < 0$ or even the expression on its own.

An acceptable attempt is to expand the bracket to 3 or 4 terms to give $4x^2 \pm kx \pm 9$

M1 for attempting to **solve** their 3TQ (see General Guidance for an acceptable attempt to factorise, complete square or use formula). For the award of this mark, their 3TQ must be either > 0 , $= 0$ or < 0 , and they must achieve their critical values.

(It is not enough just to factorise without leading to roots or a solution)

A1 for the correct critical values of $x = 4$ and $x = \frac{3}{4}$

M1 for selecting the outside region for their critical values, ft their values.

A1 for the correct inequality as shown

We will accept; a comma, a space, the word **or**, between $x < \frac{3}{4}$ $x > 4$

$x < \frac{3}{4}$ and $x > 4$ is M1A0

Use of \geq and \leq in an otherwise correct region is M1A0