Question	Scheme	Marks	AOs
8	Complete method to find the RHS of an equation for l e.g., Attempts gradient $= \dfrac{80-60}{10}\{=2\}$ and uses intercept $= 60$	M1	1.1b
	$\{y=\}2x+60$	A1	1.1b
	Deduces the RHS of the equation for C is $\{y=\}ax(x-6)$ and attempts to use $(10,80)$ to find the value of a	M1	3.1a
	Equation of C is $\{y=\}2x(x-6)$	A1	1.1b
	$2x(x-6) \text{,, } y \text{,, } 2x+60$	B1ft	2.5
		(5)	

(5 marks)

Notes:

M1: Complete attempt to use the given information to find an equation or inequality for l, which may be $l =$ or have no LHS. $y - 80 = 2(x - 10)$ is acceptable for this mark.

A1: $\{y=\}2x+60$ This is not scored by $y - 80 = 2(x - 10)$

M1: Deduces the RHS of the equation of C is $\{y=\}ax(x-6), \ a \neq 1,$ and attempts to use $(10,80)$ to find the value of a which may be implied. Again, there may be no LHS.

Other possible and more lengthy alternatives include:

1) Setting the RHS to be $\{y=\}a(x-3)^2+b$ and using $(0,0)$ and $(10,80)$ to find a and b

2) Setting the RHS to be $\{y=\}px^2+qx$ and using $(6,0)$ and $(10,80)$ to find p and q

A1: $\{y=\}2x(x-6)$ or alternative such as $\{y=\}2(x-3)^2-18$ or $\{y=\}2x^2-12x$

This may be implied by an inequality $y...2x(x-6)$ and may be seen as, e.g., $C = 2x(x-6)$

B1ft: "$2x(x-6)$" ,, y ,, "$2x+60$" o.e. must follow from their l and C and apply isw

Follow through only on a quadratic for C and a straight line for l

Do not allow a mixture of inequalities, i.e., $<$ with ,,

Allow $2x^2-12x < y < 2x+60$ or as separate inequalities $y > 2x(x-6), \ y < 2x+60$

Do not allow $2x(x-6) < R < 2x+60$ **or** $2x(x-6) < \mathrm{f}(x) < 2x+60$ **or** $2x(x-6) < 2x+60$

Ignore any reference to $-3 < x < 10$

Note: $y = 2x+60$ and $y = 2x(x-6)$ incorrectly expanded to $y = 2x^2-12$ followed by

$2x^2-12$,, y ,, $2x+60$ would score 11110