Question Number	Scheme	Marks
1. (a)	Attempts gradient = $\frac{20--4}{-5-3}=(-3)$	M1
	Attempts equation of line $y-20="-3"(x+5)$ or $y+4="-3"(x-3)$	dM1
	$y=-3x+5$	A1
		(3)
(b)	Gradient $\frac{1}{3}$ or midpoint $\left(-1,8\right)$	B1ft
	$y-8=\frac{1}{3}(x+1)$	M1
	$x-3y+25=0$	A1
		(3)
		(6 marks)

(a)

M1: Attempts gradient = $\frac{\delta y}{\delta x}$ condoning slips. Look for an attempt at a difference in y coordinates over a difference in x coordinates. There is no requirement to simplify. They may use $20--4=m\left(-5-3\right)$ to find m.

dM1: Full method for equation of line using gradient and either point – as shown or may use $y="-3"x+c$ proceeding as far as finding c.

A1: $y=-3x+5$ The coefficients must be simplified, award A0 for $y=\frac{24}{-8}x+5$

Alt (a)

M1: Sets up two simultaneous equations using both points E.g $20=-5m+c$ and $-4=3m+c$ (allow one slip).

dM1: Solves the pair of simultaneous equations to find values for m and c (accept any values following two suitable equations having been set up).

A1: $y=-3x+5$

(b)

B1ft: Correct mid point or gradient, allowing follow through on the negative reciprocal of their gradient in (a)

M1: Attempts the perpendicular bisector (need not be a simplified form). Must be using ± the reciprocal of their gradient from (a) with a valid attempt at the midpoint – at least one correct coordinate (or calculation for) must be seen for the midpoint.

A1: $x-3y+25=0$ but allow any integer multiple and term in a different order (but must be on one side). Ignore if they give a label $l_2=x-3y+25=0$