Question	Answer	Marks	Partial Marks
1	$x=3$	**B1**	
	$2-3x=4+x$ oe	**M1**	
	$x=-0.5$ oe	**A1**	
2	$x^2+3x\left(\frac{4-2x}{5}\right)=4$	**M1**	eliminate x or y
	$x^2-12x+20 \quad (=0)$	**A1**	3 terms on one side if eliminating y $5y^2+16y \quad (=0)$ if eliminating x
	$(x-2)(x-10) \quad (=0)$	**M1**	or $y(5y+16) \quad (=0)$
	$x=2$ or $x=10$ nfww	**A1**	or correct pair
	$y=0$ or $y=-\frac{16}{5}$ nfww	**A1**	
3	$(k+9)^2-4\times9 \ (>0)$	**M1**	use b^2-4ac
	$k^2+18k+45 \quad (>0)$	**A1**	
	$k=-15 \quad k=-3$	**A1**	
	$k<-15$ or $k>-3$ no isw mark final answer	**A1**	not 'and' A0 if combined as one statement
4(a)	$\frac{dy}{dx}=\frac{1}{1+\sin x}$	**M1**	
	$\times\cos x=\frac{\cos x}{1+\sin x}$	**A1**	
4(b)	insert $\frac{\pi}{6}$ into *their* $\frac{dy}{dx}$	**M1**	
	$\frac{1}{\sqrt{3}}$	**A1**	not $\frac{\sqrt{3}}{3}$