Non-Calculator

$\mathbf{\cap}$	4	
W	ı	

(a) Expand and simplify (6x - 1)(2x + 3)

Answer _____

(b) Solve $4x^2 + x - 3 = 0$

Answer _____

(Total 5 marks)

(3)

(2)

Q2.

The equation of a curve is $y = (x + 3)^2 + 5$

Circle the coordinates of the turning point.

(5,3) (5,-3) (3,5) (-3,5)

(Total 1 mark)

(a)	Show that	at $x^2 - 8x +$	20			
	can be w	ritten in the forn	$(x - a)^2 + a$			
	where a i	s an integer.				
(b)	Honoo o	volcin how you	know that $-\infty^2$	9 ₁₁ ± 20 in alway	vo positivo	
(b)	nence e	xpiain now you	Know that x	8x + 20 is alway	rs positive.	
						(Total 5 n
-						
(a) \	Write	$x^2 - 10x + 12$	in the form	$(x-a)^2+b$		
	where a	and b are in	itegers.			
,						
			Answer			
(b)	When	$(r - 2)^2 + 7$	has a minimu	m value, what is th	ne value of x2	
` ,			ilas a millimu	ili value, what is ti	ie value of x !	
	Circle you	ur answer.	2	7	4.4	
		-2	2	I	11	
						(Total 3 n

Calculator

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40		
	Solve $\frac{x}{4} - \frac{2x}{x+2} = 1$	
	Give your solutions to 2 decimal places.	
	You must show your working.	
		<u> </u>
	Answer	
	THOWOI	 (Total 6 marks
		(
Q6		
	Solve the equation $\frac{1}{x-2} - \frac{1}{x-1} = 2$	
	Solve the equation $x-2$ $x-1$	
	Give your answers to 2 decimal places.	
	Give your answers to 2 decimal places.	

Answer _____

(Total 6 marks)

You	are give	en that $x^2 - 1$	2x + a = (x -	<i>c</i>) ²	
Wor	k out the	e values of a an	d <i>c</i> .		
				a =	
				c =	(Total 3 mar
3.					
). (a)	Write	$x^2 + 6x + 10$	in the form	$(x+a)^2+b$	
	-				
			Answer_		

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(1)

(Total 3 marks)

Answer (....., ,)

Q9.	
œυ.	

You are given that $(x + a)^2 - 7 \equiv x^2 + 10x + b$ Work out the values of a and b. $a = \underline{\qquad \qquad \qquad }$

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(Total 2 marks)

Q10.

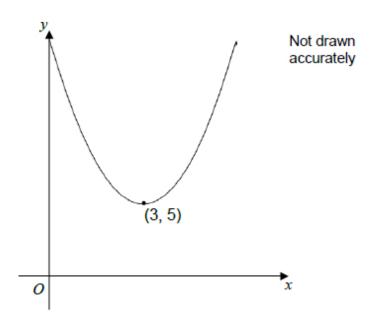
(a) Write $x^2 - 10x + 29$ in the form $(x - a)^2 + b$

Answer ____

(2)

(b) A sketch of $y = x^2 + cx + d$ is shown.

The turning point is (3, 5)



Work out the values of c and d.

c = _____ d = ____

(3) (Total 5 marks)

_			
_	4	4	
	7	7	
w			_

Give your answers to 2 deci	mal places.		
_			
	Answer	and	
			(Total 6 m
_			
Solve $5x^2 = 10x + 4$.			
Solve $5x^2 = 10x + 4$.	mal places.		
Solve $5x^2 = 10x + 4$.	mal places.		
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Solve $5x^2 = 10x + 4$.	mal places.		
Solve $5x^2 = 10x + 4$.	mal places.		
Solve $5x^2 = 10x + 4$. Give your answers to 2 deci	mal places.		