Q1.	2 <i>x</i> ² –	6 <i>x</i> + 5	can be writter	n in the form	$a(x-b)^2 + c$		
	where	e <i>a, b</i> and	d c are positive	numbers.			
	(a)	Work ou	ut the values of	a,b and c			
					<i>a</i> =		
					<i>b</i> =		
					<i>c</i> =		(3)
	(b)	Using yo	our answer to p	art (a), or oth	erwise, solve	$2x^2 - 6x + 5 = 8.5$	
				•••••			

Give your answers to 2 decimal places.

	Answer	(3)
		(Total 6 marks)
Q2.		
	Solve the quadratic equation $5x^2 + 8x + 2 = 0$	
	Circa vasuu amassama ta A. da circal alaca	
	Give your answers to 1 decimal place.	
		•
	Answer	
		(Total 3 marks)
Q3.		
	Solve the equation $\frac{1}{x-2} - \frac{1}{x-1} = 2$	
	Solve the equation $x-2$ $x-1$	

	•••••		
		Answer	
			Total 6 marks)
Q4.	(-)	Write $x^2 - 10x + 12$ in the form $(x - a)^2 + b$	
	(a)	VV	
		where a and b are integers.	
		where a and b are integers.	
		where a and b are integers.	
		where a and b are integers.	
		where a and b are integers.	(2)
		where a and b are integers.	(2)

(b) When $(x-2)^2 + 7$ has a minimum value, what is the value of x^2 .

Circle your answer.

11

-2

		(1	(1) Fotal 3 marks)
Q5.	Solv	/e $5x^2 + 3x - 4 = 0$	
	Give	e your answers to 2 decimal places.	
		Answer and	Fatal 2 marks)
		(1)	Fotal 3 marks)
Q6.			
Qυ.	(a)	Expand and simplify $(5x - 2y)(x + 2y)$	
		Answer	(3)
	(b)	Solve $x^2 - 2x - 2 = 0$	
		Give your answers to 1 decimal place.	

7

2

		at $x^2 + ax$ ues of a and b .	+ <i>b</i> ≡ (<i>x</i> − 5)) ² + 7		
					(Тс	otal 9
		Answer				
c)	Simplify	$\frac{3x^2 - x - 10}{x^2 - 4}$	1			
		AHSWEL			 	
		Λροψος			 	

			• • • • • • • • • • • • • • • • • • • •	 •••••
	<i>a</i> =			
	<i>b</i> =			
				(Total 3 mark
3.Solve the quad	ratic equation	$3x^2 - 12x - 5$	5 = 0	
Give your an	swers to 2 decim	al places.		
	Answer	r		
				(Total 3 mark
You are given t	that $x^2 - 12x +$	$a = (x - c)^2$		
Work out the	values of a and a	C		
Work out the	values of a and t	· .		
			•••••	

	c =	Total 3 marks)
	Use the quadratic formula to solve $2x^2 - 5x - 4 = 0$ Give your answers to 2 decimal places.	
	Answer	Total 3 marks)
Q11.\	Write $x^2 + 8x + 7$ in the form $(x + a)^2 + b$	
	Answer	Total 3 marks)

Q12.	Solve 2	$x^2 + 6x + 2 = 0$			
	Give your	answer in the form	$a \pm \sqrt{b}$	where a and b are integers.	
		Answer			(Total 4 marks)
Q13.		0.2 0 7 0			
		$2x^2 + 3x - 7 = 0$ answers to 2 decimal	al places.		
		Answer			(Total 3 marks)