

Algebraic Fractions (Simplifying)





CHECK YOUR ANSWERS



1	Simplify fully $\frac{3a+9}{a^3+3a^2}$	[2 marks]
	$a^3 + 3a^2$	
	Answer	
	$2x^2-2xy$	
2	Simplify fully $\frac{2x^2 - 2xy}{xy^4 - y^5}$	[2 marks]
	Answer	
3	Simplify fully $\frac{3b+b^3}{4b^2+12}$	[0 auk.a]
3	$\frac{311101119}{4b^2 + 12}$	[2 marks]
1st		
T'	Answer	



4	Simplify fully -	$\frac{10n^2 - 90}{2n - 6}$	[2 marks]
		Answer	
5	Simplify fully	$\frac{4k^2-1}{2k^3-2k^2}$	[2 marks]
		5K° – 3K²	
		Answer	
6	Simplify fully $\frac{4}{}$	$\frac{c^3 - 100c}{4c + 20}$	[2 marks]
		Answer	

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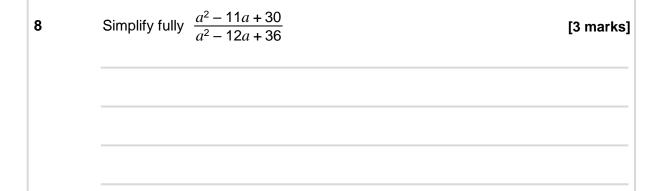




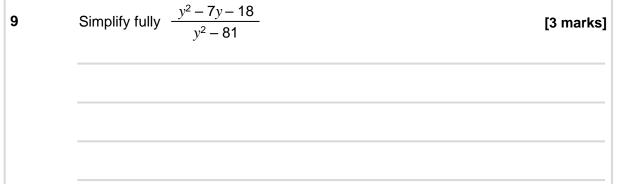


[3 marks]	Simplify fully $\frac{2x^2 - 32}{x^2 + 9x + 20}$

Answer ____



Answer



Answer ___

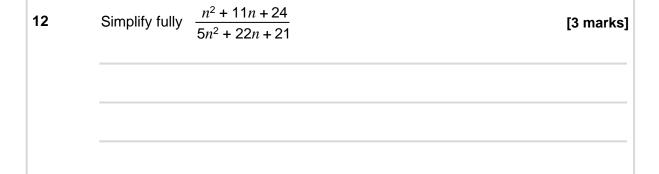
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10	Simplify fully	$\frac{9x^2 - 25}{3x^2 + 14x + 15}$	[3 marks]
		Answer	
11	Simplify fully	$\frac{4y^2 - 9}{2y^2 - 11y + 12}$	[3 marks]

Answer



Answer



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13	Simplify fully	$\frac{45 - 20x^2}{2x^2 + 5x + 3}$	[3 marks]
		Answer	
14	Simplify fully	$\frac{3x^2 + 19x + 6}{9x^2 + 6x + 1}$	[3 marks]
		Answer	
15	Simplify fully	$\frac{3x^2 - 300}{6x^2 + 55x - 50}$	[3 marks]

Answer



Solutions



	$\frac{12x - 36}{x^2 + 5x} \times \frac{x}{x}$ <i>b</i> are integers.	can be written in the form	$a + \frac{b}{x}$ [4 marks]

17	Show that $(10x - 35) \div \frac{2x^2 - 15x + 28}{2x^2 - 32}$	can be written in the form	ax + b
	where a and b are integers.		[4 marks]







18	Show that $9x^{-3} \times \frac{3x^5 + 10x^4}{9x^2 - 100} \div \frac{x^2}{6x - 20}$	can be written in the form	$\frac{a}{x}$ [4 marks]
	where a is an integer.		[· · · · · · · · · · · · · · · · · · ·

19	$2x - \frac{x^3 - x^2}{x^2 + 2x - 3} \times \frac{2x^2 - 1}{x^2}$ can be written in the form $\frac{ax + b}{x + 3}$	
	where a and b are integers. Work out the values of a and b .	[4 marks]



b = ____