



SCAN ME

Algebraic Fractions (Simplifying)



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REVISE THIS TOPIC

CHECK YOUR ANSWERS

1 Simplify fully $\frac{3a + 9}{a^3 + 3a^2}$ [2 marks]

Answer _____

2 Simplify fully $\frac{2x^2 - 2xy}{xy^4 - y^5}$ [2 marks]

Answer _____

3 Simplify fully $\frac{3b + b^3}{4b^2 + 12}$ [2 marks]

Answer _____





4 Simplify fully $\frac{10n^2 - 90}{2n - 6}$ [2 marks]

Answer _____

5 Simplify fully $\frac{4k^2 - 1}{6k^3 - 3k^2}$ [2 marks]

Answer _____

6 Simplify fully $\frac{4c^3 - 100c}{8c + 20}$ [2 marks]

Answer _____





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

Answer _____

8 Simplify fully $\frac{a^2 - 11a + 30}{a^2 - 12a + 36}$ [3 marks]

Answer _____

9 Simplify fully $\frac{y^2 - 7y - 18}{y^2 - 81}$ [3 marks]

Answer _____

Turn over ►





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 _____

12 Simplify fully $\frac{n^2 + 11n + 24}{5n^2 + 22n + 21}$ [3 marks]

Answer _____





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 _____

Turn over ►





16 Show that $\frac{12x - 36}{x^2 + 5x} \times \frac{x^2 + 9x + 20}{3x - 9}$ can be written in the form $a + \frac{b}{x}$ where a and b are integers. [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 $\frac{a}{x}$ where a is an integer. [4 marks]

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]

$a =$ _____ $b =$ _____

