Chhetri Academy

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GCSE MATHS

Algebra

Edexcel 1MA1 | Subtopic collection Topic 15

Laws of indices in algebra

Foundation tier

Past paper question booklet

9	2010-2022	Foundation
question groups	available papers	tier

Before you begin

1. Show working and use units where appropriate.
2. Use extra paper if you need more space.
3. Print at actual size (100%) for measurement questions.

Name _____ **Date** _____

Whole questions are retained for context; some parts cover other points. Legacy sources are labelled.

14 (a) Simplify $m + m + m + m + m + m$

.....

(1)

(b) Simplify $x^7 \times x^5$

.....

(1)

(c) Factorise $3y^2 + 2y$

.....

(1)

(Total for Question 14 is 3 marks)

23 (a) Simplify $n^5 \times n^3$

.....

(1)

(b) Simplify $n^7 \div n^2$

.....

(1)

(Total for Question 23 is 2 marks)

16 (a) Expand $5(m + 2)$

.....

(1)

(b) Factorise $y^2 + 3y$

.....

(1)

(c) Simplify $a^5 \times a^4$

.....

(1)

(Total for Question 16 is 3 marks)

12 (a) Simplify $4ab - 3ab$

.....

(1)

(b) Simplify $x^2 + x^2 + x^2$

.....

(1)

(c) Simplify $3x - 2y + x - 3y$

.....

(2)

(Total for Question 12 is 4 marks)

17 (a) Factorise fully $6xy + 18xy^2$

.....

(2)

(b) Simplify $\frac{w^6}{w^3}$

.....

(1)

(c) Simplify $(a^4)^5$

.....

(1)

(Total for Question 17 is 4 marks)

25 (a) Simplify $\frac{n^3}{n}$

.....

(1)

(b) Simplify $a^3 \times a^4$

.....

(1)

(Total for Question 25 is 2 marks)

14 (a) Simplify $7a - 3a$

.....

(1)

(b) Simplify $2 \times 3m$

.....

(1)

(c) Simplify $x^2 + x^2 + x^2$

.....

(1)

(d) Simplify $3cd + 4cd$

.....

(1)

(Total for Question 14 is 4 marks)

26 (a) Simplify $(p^2)^5$

.....

(1)

(b) Simplify $12x^7y^3 \div 6x^3y$

.....

(2)

(Total for Question 26 is 3 marks)

21 (a) Simplify $(x^3)^5$

.....

(1)

(b) Expand and simplify $4(x + 3) + 7(4 - 2x)$

.....

(2)

(c) Factorise fully $15x^3 + 3x^2y$

.....

(2)

(Total for Question 21 is 5 marks)