



ACHIEVE ACADEMY

GCSE Maths — Higher Tier

Expressions, Substitution & Simplifying · Practice Booklet

NAME: _____

CLASS: _____

DATE: _____

☐ Developing

☒ Secure

☐ Greater Depth

Answer every question in the working space provided. Method marks are available for correct working even if the final answer is wrong. Check the time allowed with your tutor before you start.

Expressions, Substitution & Simplifying

Total marks available: 102

● Expressions, Substitution & Simplifying

Q1

[3 marks]

Factorise $n^2 + 3n - 4$.

Q2

[4 marks]

Expand and simplify $(5y - 1)(4y + 3)$.

Q3

[3 marks]

Factorise $b^2 - 14b + 49$.

Q4

[3 marks]

Factorise $n^2 + 4n + 3$.

Q5

[4 marks]

Expand and simplify $(4y - 2)(4y - 1)$.

Q6

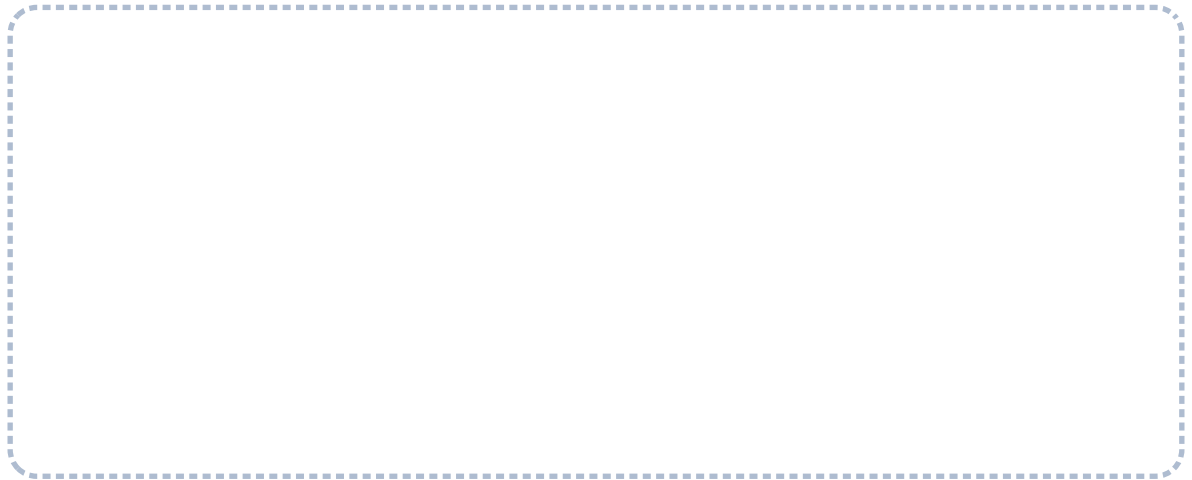
[4 marks]

Expand and simplify $(5a + 5)(3a + 4)$.

Q7

[3 marks]

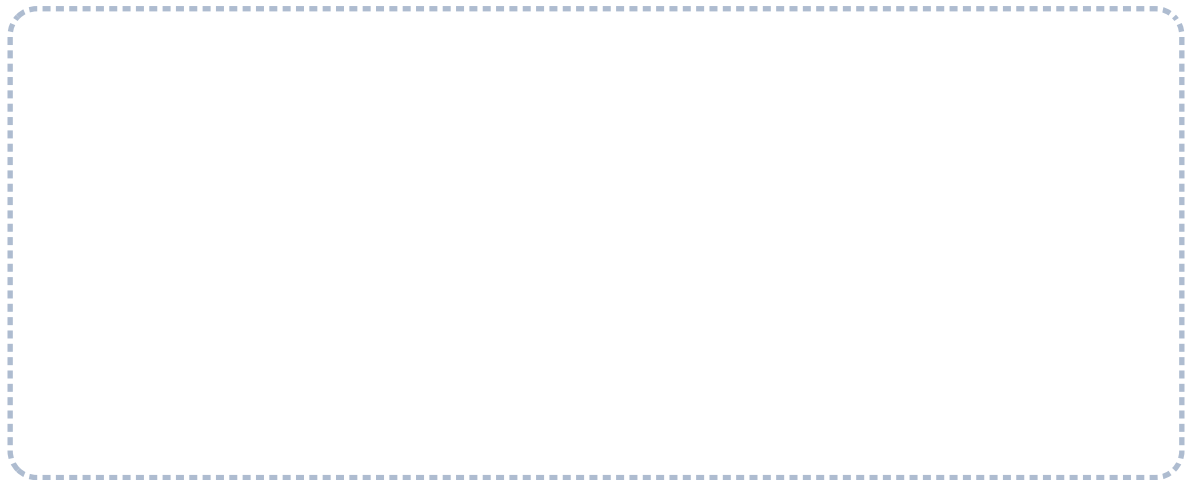
Factorise $b^2 + 15b + 56$.



Q8

[3 marks]

Factorise $y^2 + 6y - 27$.



Q9

[4 marks]

Expand and simplify $(2x + 2)(4x - 1)$.

Q10

[3 marks]

Factorise $n^2 + 8n + 16$.

Q11

[3 marks]

Simplify $(5n - 20) / (2n - 8)$.

Q12

[3 marks]

Simplify $(5a + 25) / (2a + 10)$.

Q13

[4 marks]

Expand and simplify $3(a + 6)(a + 3)$.

Q14

[4 marks]

Expand and simplify $4(x - 1)(x + 4)$.

Q15

[3 marks]

Simplify $(2a + 10) / (5a + 25)$.

Q16

[3 marks]

Simplify $(3b - 18) / (5b - 30)$.

Q17

[3 marks]

Simplify $(5a - 10) / (2a - 4)$.

Q18

[4 marks]

Expand and simplify $4(x + 1)(x - 3)$.

Q19

[4 marks]

Expand and simplify $4(b - 6)(b - 2)$.

Q20

[3 marks]

Simplify $(5b - 5) / (2b - 2)$.

Q21

[3 marks]

Factorise $n^2 - 4$.

Q22

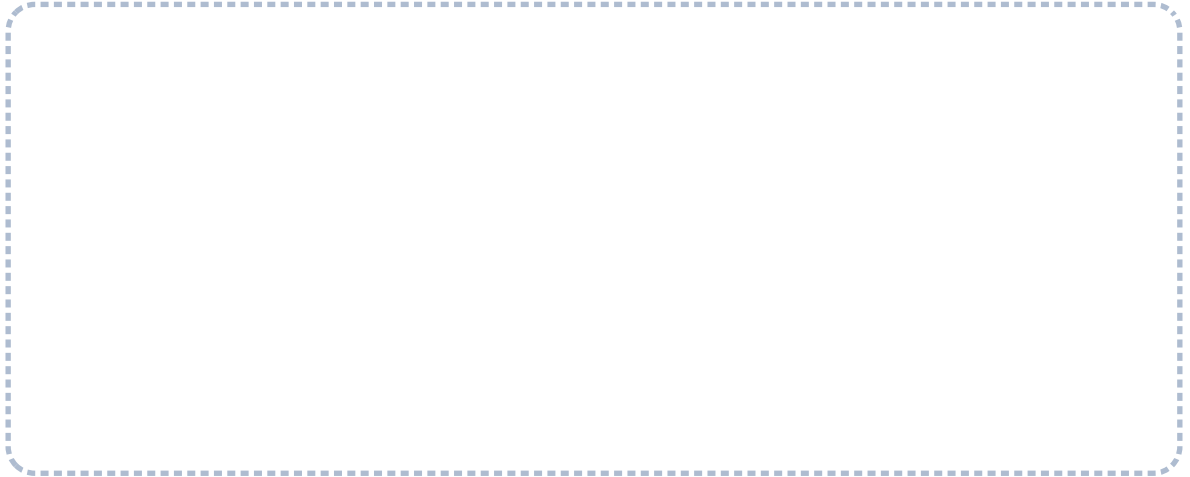
[4 marks]

Factorise $5x^2 + 18x + 9$.

Q23

[4 marks]

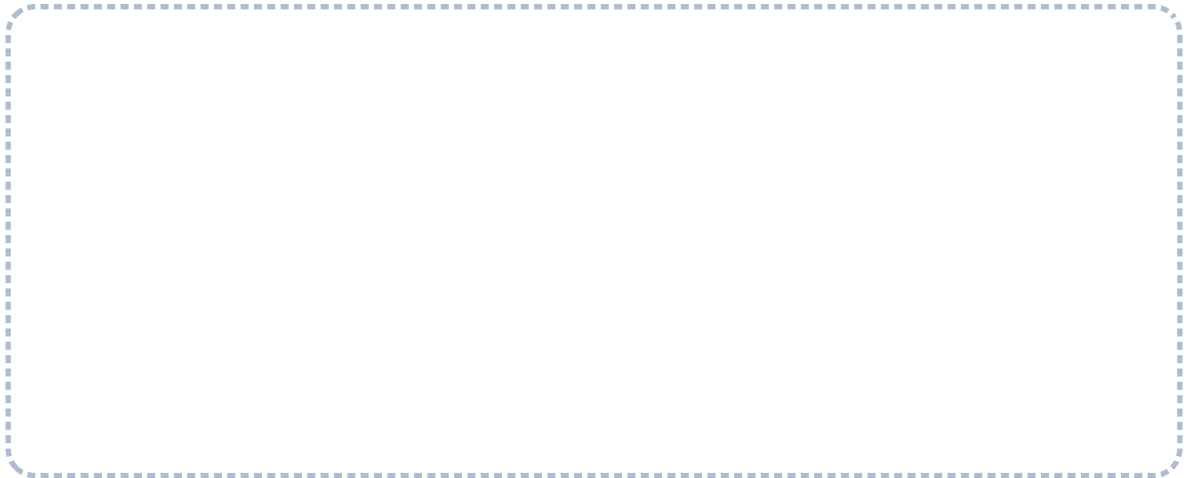
Factorise $4x^2 - 7x - 15$.



Q24

[3 marks]

Factorise $9y^2 - 1$.



Q25

[3 marks]

Factorise $9y^2 - 49$.

Q26

[4 marks]

Factorise $3b^2 + 10b + 3$.

Q27

[3 marks]

Factorise $9y^2 - 25$.

Q28

[3 marks]

Factorise $b^2 - 25$.

Q29

[4 marks]

Factorise $3y^2 + y - 10$.

Q30

[3 marks]

Factorise $4x^2 - 1$.