

**2025 SHS1 END OF SEMESTER EXAM ADDITIONAL MATHEMATICS 1
OBJECTIVES**

1. **c.** Geometric only
2. **d.** $\log 2$
3. **a.** $x = \frac{2}{3}, y = \frac{10}{3}$
4. **c.** $U_n = 4n - 1$
5. **a.** $4(3)^{n-1}$
6. **b.** 24
7. **c.** $x \in \mathbb{R}, x \neq 2$
8. **c.** $\frac{2}{9}x^2$
9. **a.** 1
10. **b.** $f^{-1}: x \rightarrow \frac{3}{2-x}, x \neq 2$
11. **c.** $\{x : x \in \mathbb{R}, x \neq 0\}$
12. **a.** $3x^3 + 2x^2 - 4x - 2$
13. **c.** $f(x) = ax^2 + bx + c$ where $a \neq 0$
14. **d.** Discriminant
15. **b.** real and different/ discrete roots
16. **a.** $x = -2, x = 5$
17. **a.** $18 - 3n$
18. **d.** 6
19. **c.** $3x - 1 + (2x-1)/(x^2-2)$
20. **a.** $\frac{1}{3}$
21. **d.** 16
22. **a.** $6x + 1$
23. **c.** 3
24. **b.** 5
25. **d.** 189
26. **a.** $\{7, -5\}$
27. **a.** $\frac{49}{4}$
28. **a.** $\{x : x \in \mathbb{R}, x \neq -4\}$
29. **b.** $f: x \rightarrow (3x-1)/2$
30. **a.** $y^3 = x^2$

