FLE UNIT 10 – LINEAR FUNCTIONS
REVISION PAPER

Finding gradients and equations of straight lines

Name: _____	Class: _____	Date: _____
Time: 30 minutes	Calculator: permitted	Total: 30 marks

Instructions: Show your working where appropriate. Use y = mx + c. Remember: m = gradient and c = y-intercept.

A. Gradient from a Graph (5 marks)

1. A line passes through (0, 1) and (2, 7). Find the gradient.

_____

2. A line passes through (–2, 5) and (2, –3). Find the gradient.

_____

3. A line rises 9 units while moving 3 units to the right. Find the gradient.

_____

B. Gradient from a Table (5 marks)

x	–1	0	1	2
y	–1	4	9	14

4. Find the gradient.

_____

x	–2	–1	0	1
y	6	3	0	–3

5. Find the gradient.

_____

C. Gradient from an Equation (5 marks)

6. Find the gradient of y = 4x – 7.

_____

7. Find the gradient of y = 9 – 2x.

_____

8. Find the gradient of y = –0.5x + 6.

_____

9. Find the gradient of y = 10 + 3x.

_____

10. Find the gradient of y = 0.8x – 4.

_____

D. Equation from a Graph (5 marks)

11. The line has gradient 3 and crosses the y-axis at 5.

_____

12. The line has gradient –2 and crosses the y-axis at 6.

_____

13. The line has gradient 4 and crosses the y-axis at –3.

14. The line has gradient –1 and crosses the y-axis at 2.

15. The line has gradient 0.5 and crosses the y-axis at 4.

E. Equation from a Table (5 marks)

x	–1	0	1	2
y	–4	–1	2	5

16. Write the equation in the form y = mx + c.

x	–2	–1	0	1	2
y	6	8	10	12	14

17. Write the equation in the form y = mx + c.

x	–3	–2	–1	0	1
y	19	13	7	1	–5

18. Write the equation in the form y = mx + c.

F. Equation from Two Points (5 marks)

19. The line passes through (0, 4) and (1, 8). Find its equation in the form y = mx + c.

20. The line passes through (0, 6) and (2, 12). Find its equation in the form y = mx + c.

21. The line passes through (3, 7) and (0, 5). Find its equation in the form y = mx + c.

22. The line passes through (3, 2) and (0, –4). Find its equation in the form y = mx + c.

23. The line passes through (2, 6) and (0, 3). Find its equation in the form y = mx + c.

Final Check

My gradient formula is: m = _____

The equation of a straight line is: _____

In y = mx + c, m means _____ and c means _____.