

GRADIENT BETWEEN TWO COORDINATES

Answer all of these questions. Remember to show your working out in all questions.

MAIN QUESTIONS

- | | | | |
|-----|----------------------|-----|----------------------|
| 1. | (2, 3) and (5, 7) | 2. | (1, 1) and (4, 9) |
| 3. | (0, 0) and (3, 6) | 4. | (-1, 2) and (3, 10) |
| 5. | (5, 7) and (1, 3) | 6. | (2, 4) and (6, 16) |
| 7. | (-3, -5) and (1, 3) | 8. | (4, 1) and (8, 5) |
| 9. | (0, 5) and (5, 0) | 10. | (7, 2) and (3, 6) |
| 11. | (1, 1) and (1, 5) | 12. | (3, 4) and (7, 4) |
| 13. | (-2, -3) and (4, 9) | 14. | (6, 2) and (2, 6) |
| 15. | (5, 10) and (10, 20) | 16. | (8, 3) and (2, 9) |
| 17. | (-4, -6) and (0, 0) | 18. | (3, 7) and (3, 2) |
| 19. | (9, 5) and (6, 5) | 20. | (10, 20) and (5, 10) |

MASTER QUESTIONS



- M1.** A line passes through the points (2, 3) and (5, 7). Find its gradient.

- M2.** A hill rises 50 metres over a horizontal distance of 200 metres. Calculate the gradient.
- M3.** A road has a gradient of 0.15. How much does it rise over a horizontal distance of 80 metres?
- M4.** A line has a gradient of 2 and passes through the points (1, 1) and (3, y). Find y.
- M5.** A line segment joins (4, 1) to (8, 5). Another joins (3, 6) to (7, 2). Are they parallel?
- M6.** A staircase has a rise of 18cm for each 24cm tread. What is its gradient?
- M7.** A line passes through (0, 0) and (a, b) with gradient 3. Express b in terms of a.
- M8.** Two points (3, y) and (7, 11) have a gradient of 2. Find y.
- M9.** A line with gradient -1 passes through (5, 5). Find another point on the line.
- M10.** A line segment from (1, 4) to (5, 12) is extended to (9, y). Find y.