# Answers and mark guide

| Q | Answer | Working | Marks |
|---|---|---|---|
| 1 | **−2** | Parallel lines have equal gradients. | 2 |
| 2 | **−3** | Parallel lines have equal gradients. | 2 |
| 3 | **−2** | Parallel lines have equal gradients. | 2 |
| 4 | **3** | Parallel lines have equal gradients. | 2 |
| 5 | **4** | Parallel lines have equal gradients. | 2 |
| 6 | **y = 4x** | Same gradient; find c using the point. | 4 |
| 7 | **y = −2x + 2** | Same gradient; find c using the point. | 4 |
| 8 | **y = (2/3)x + 2/3** | Same gradient; find c using the point. | 4 |
| 9 | **y = (2/3)x − 5/3** | Same gradient; find c using the point. | 4 |
| 10 | **y = (1/2)x + 7/2** | Same gradient; find c using the point. | 4 |
| 11 | **−1/3** | Perpendicular gradients multiply to −1. | 3 |
| 12 | **Yes** | 4 × −1/4 = −1 | 3 |
| 13 | **Yes** | Same gradient | 3 |
| 14 | **They are perpendicular** | Product of gradients is −1 | 3 |
| 15 | **3** | Rise ÷ run | 3 |
| 16 | **y = −(1/2)x + 2** | Use the perpendicular gradient and the point. | 5 |
| 17 | **y = −(3/2)x + 4** | It crosses at (0, c), so c is the same. | 5 |
| 18 | **Only if the gradients multiply to −1** | Check the product of gradients. | 4 |
| 19 | **1/3** | Negative reciprocal of AB's gradient. | 5 |
| 20 | **y = 2x** | Same gradient, c = 0 | 4 |

**My score:** _____ / **68** Questions 1–15 = 45 marks (Foundation focus)