**Year 9: Autumn 1 Half Term Check-up Name: ……………………**

**Score: …….…………… / 20**

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| **Section A: Knowledge** | |
| Give an example of a **coordinate** |  |
| What is the **y-intercept** of a line? |  |
| Use the grid to sketch a pair of **parallel lines** |  |
| How can the **gradient** of a straight line be calculated? |  |

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| **Section B: Common Mistakes** |
| Given this point. What is the value of the -coordinate? Circle one answer. |
| A line has equation . What is the gradient of the line? |
| Which equation that represents a quadratic graph? |
| Which of the following units is a measure of speed? |

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| **Section C: Problems** |
| **Q1.**    The equation of a line is     *y* = *x* − 1  (a)     Complete the table of values.     |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | ***x*** | −2 | −1 | 0 | 1 | 2 | |  | ***y*** |  | −2 | −1 |  | 1 |   **2 marks**  (b)     Draw the graph of      *y* = *x* − 1      from *x* = −2 to *x* = 2    **2 marks**  **Q2.**    A straight-line graph  •        has gradient 4  •        crosses the *y* axis at (0, −3).  Write down the equation of the graph.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **2 marks**  **Q3**.  The distance-time graph shows the journey of a toy car.    (a)  For how long is the toy car stationary?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Answer  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  seconds  **(1)**  (b)  Work out the average speed for the last five seconds of the journey.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Answer  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  m/s  **(2)**  **(Total 3 marks)**  **Q4.**  On the grid, identify the region represented by  *x* > 3   and *y* > 1   and   *x* + *y* ⩽ 7  Label the region R.    **(Total 3 marks)**  **END OF CHECK UP** |