**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$ (3, 8)$. What is the value of the $x$-coordinate? Circle one answer. $3 $ $5$ $8 $ $11$ |
| A line has equation $y = 2x + 1$. What is the gradient of the line? $1$ $2$ $x$ $2x$ |
| Which equation that represents a quadratic graph?  $x=2 $ $ y=2 $ $y=x^{2}+2 $ $y=x+2 $ |
| Which of the following units is a measure of speed?  $miles km/h hours ms^{-2}$ |

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| **Section C: Problems**  |
| **Q1.** The equation of a line is     *y* = *x* − 1(a)     Complete the table of values.

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|   | ***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* ⩽ 7Label the region R.**(Total 3 marks)****END OF CHECK UP**  |