**Yr8 Straight Line Equations – Gradients and Basics**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| 1 | The equation of a straight line is .   1. is known as the \_\_\_\_\_\_\_\_\_\_\_\_\_ 2. is known as the \_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 2 | A straight line goes through the points and . What is the gradient of the line?  Gradient: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 3 | 1. A line has the equation . What is its gradient?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. A line has the equation . What is its gradient?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 4 | A point is on the line with equation . If the value of the point is , what is the full coordinate of the point? |  |
| 5+6 | Identify the full equation of the following two lines.     1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 7+8 | On the grid below, draw lines that satisfy the following equations. |  |

**QQQ – Yr8 Straight Line Equations - ANSWERS**

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| --- | --- | --- |
| 1 | The equation of a straight line is .  **(Half mark for each)**   1. is known as the \_**gradient**\_ 2. is known as the **y-intercept** |  |
| 2 | A straight line goes through the points and . What is the gradient of the line?  **Gradient:** |  |
| 3 | 1. A line has the equation . What is its gradient?  **(don’t accept 3x)** 2. A line has the equation . What is its gradient?  **-2** |  |
| 4 | A point is on the line with equation . If the value of the point is , what is the full coordinate of the point? |  |
| 5+6 | Identify the full equation of the following two lines.     1. **(1 mark)** 2. **(1 mark)** |  |
| 7+8 | On the grid below, draw lines that satisfy the following equations.   1. **(1 mark)** 2. **(1 mark) (0.5 marks if they successfully rearranged to )** |  |

(5+ Bronze, 6+ Silver, 7+ Gold, 8 Platinum)