G2 *Straight Lines*

Mental Maths Questions

M G2 *(no calculator)*

1. What is the gradient of the line that passes through the points

   (a) $(0, 0)$ and $(1, 2)$ (2)

   (b) $(2, 0)$ and $(4, 1)$ $\left(\frac{1}{2}\right)$

   (c) $(1, 0)$ and $(0, 1)$ (-1)

   (d) $(2, 0)$ and $(0, 1)$ $\left(-\frac{1}{2}\right)$

2. What is the equation of the straight line that cuts the y-axis at $y = 2$ and has gradient 3? $(y = 2 + 3x)$

3. What is the equation of the straight line that cuts the y-axis at $y = -1$ and has gradient –2? $(y = -1 - 2x)$

4. The equation of a straight line is $y = 4 - x$.

   What is (a) the gradient (–1)

   (b) the y-intercept? (4)

5. A horizontal line passes through the point $(3, 2)$. What is its equation? $(y = 2)$

6. A vertical line passes through the point $(-1, 3)$. What is its equation? $(x = -1)$

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