

GAC004 CA 2 (Equation of a Straight Line)

- 1) Write down an equation of a line that is parallel to $y = 6x + 5$ and passes through $(0, 7)$
- 2) Write down an equation of a line that is parallel to $x + 2y = 4$ and passes through $(0, 3)$
- 3) Write down an equation of a line that is perpendicular to $y = \frac{1}{2}x + 3$ and passes through $(0, -1)$
- 4) Write down an equation of a line that is perpendicular to $3x - y = 1$ and passes through $(0, 9)$
- 5) A straight line L passes through the points $(0, 6)$ and $(4, 2)$. Another straight line M passes through the point $(0, 1)$ and it's perpendicular to line L. Find the equation of the line M.
- 6) A straight line P passes through the points $(0, 6)$ and $(4, 2)$. Another straight line Q passes through the point $(0, 1)$ and it's parallel to line L. Find the equation of the line M.
- 7) The point C is $(5, -2)$ and the point D is $(11, 1)$. Find the equation of a line perpendicular to CD passing through the origin.
- 8) The line L passes through the points $(-4, 2)$ and $(2, -2)$. The line M passes through the points $(3, 8)$ and $(2, 2)$. Are the lines M and L perpendicular? Write YES or NO.
- 9) The line L passes through the points $(-4, 2)$ and $(2, -2)$. The line M passes through the points $(3, 5)$ and $(2, 2)$. Are the lines M and L perpendicular or parallel?
- 10) A, B and C are coordinates of $(2, 9)$, $(10, -7)$ and $(6, k)$ respectively. Given that AB is perpendicular to AC, find the value of K.