WKF F3 Ch8 Coordinate Geometry of Straight Lines Assignment 5

Grade 9 Mathematics Term 1 Assignment 5

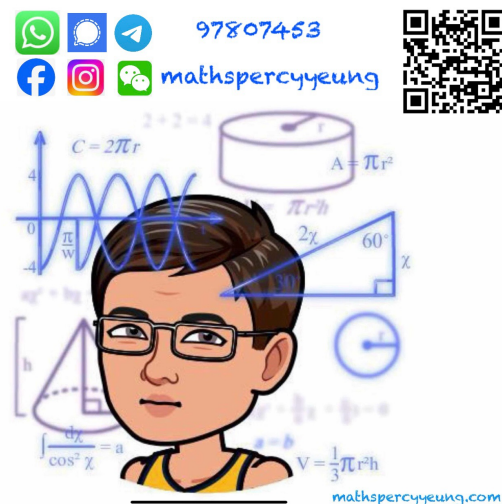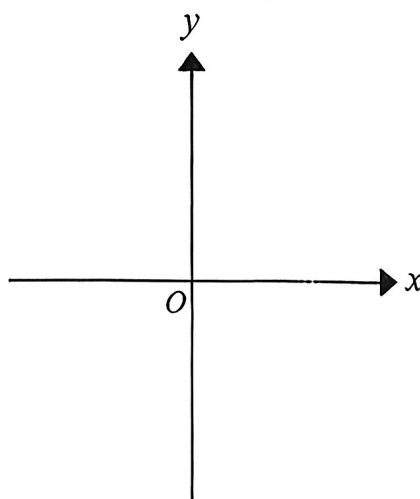Name: _____(_____)   Date: _____

Class: _____   Grade: _____

Content: Ch.8 Coordinate Geometry of Straight Lines

1. On the rectangular coordinate plane, the straight line $L_1 : 3x - y + 1 = 0$ has a

    slope of 3. The coordinates of A are $\left(-\dfrac{2}{9}, \dfrac{1}{3}\right)$.

(a) Does A lie on L_1? Explain your answer.

(b) Denote the origin by O. Another straight line L_2 cuts the x-axis and y-axis

     at $C(2, 0)$ and B respectively. $L_1 \parallel L_2$.

   (i)   Find the y-intercept of L_2.

   (ii) D is the internal point of division of BC such that $BD : DC = 2 : 1$.
         Find the coordinates of D.

   (iii) Prove that A, O and D are collinear.

   (iv) Is AD perpendicular to L_2? Explain your answer.

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END OF ASSIGNMENT