JAFFNA HINDU COLLEGE

Risk Holiday Self - Education Worksheet (2) – 2020

Grade – 12 (2021) | Combined Maths

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INSTRUCTIONS :

- Answer all the questions.
- Answer the questions on answer sheets only.
- Read the respective lesson units thoroughly and comprehend before you attempt answering the questions.
- File the completed answer and hand over to the class teacher when the school reopens.

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Co-ordinate Geometry

1) Find the equation of a line passing through (-3,5) and having slope 7.
2) Find the equation of a straight line which cuts off an intercept at 5 units on y axis and is parallel to the line joining the points (4,-3) and (2,-5).
3) Find the equation of the perpendicular bisector of the line segment joining the points A(3,-5) and B(5, -11).
4) Find the equation of the altitudes of the triangle whose vertices are A(7, -1), B(-2, 8) and C(1,2).
5) without using pythagrass theoram, Prove that A(4, 4), B(3, 5) and C(-1, -1) are vertices of right triangle.
6) Prove that A(4, 3) , B(6, 4), C(5, 6) and D(3, 5) are the vertices of a square.

7) If $A \equiv (12,-18), B \equiv (-15,24)$ determine the coordinates of the point which divides AB in the ratio $2:1$.

i. Internally
ii. Externally

8) Suppose M is the midpoint of AB, where A is $(8,10)$ and B is $(8,20)$. Further, P divides AB internally and Q divides externally in the ratio $2:3$. Show that $MP \cdot MQ = MB^2$

9) Find the equation of the line with x intercepts 3 and y intercepts (-5).

10) A ray of light passing through the point $(1,2)$ reflection on the x axis at a point "A" and the reflected ray passes through the point $(5,3)$. Find the coordinate of A.