MCU404

Analytic Geometry

Assignment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Group:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Calculate the midpoint between A(-2,-5) and B(6,7).

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Calculate the point that is ¼ of the way from A(6,9) to B(-2,-5).

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Calculate the distance between each set of points.
2. P(-2,2) & Q(3,0) b) S(-4,-3) & R(2,5)

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Find the equation of the line that is parallel to $y=-3x+2$ and passing through (-1,3).

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Find the equation of the line perpendicular to $y=-2x+8$ and passing through (10,5).

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Two ships are headed to the port of Saint-Martin-des Dunes. The ships are following the courses $y=\frac{1}{3}x+400$ and $y=\frac{5}{4}x+180$. The port is located at the intersection point of these two courses. On the same grid, Palimers Island is located at (375,412). What distance separates the port from the island, if the scale of the graph is in kilometers?

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| 7. **B(5, 12)***y**x***C****D****A** **(0, 6)** | * Triangle ABC is a right angled triangle at angle A.
* The coordinates of point A are (0, 6) and point B are (5, 12).
* Point C is located on the x-axis.
* Point D is located of the way along side AB.
* Line segment CD connects points C & D.
* The scale is in meters.

**What is the length of line segment CD?** |

8. Quadrilateral  is represented in the Cartesian plane below. Is it true that  is a parallelogram?



9. Consider the following diagram of a triangle where EF is the base and DP is the height. Point P divides side EF in a ratio of. Find the area of triangle DEF. All units are in cm.

