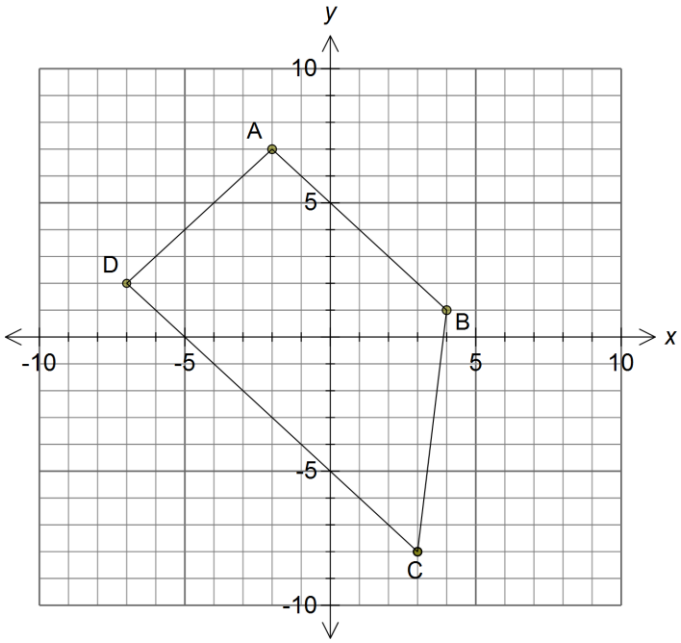
Math 4CST Review of Analytic Geometry

Name : _____

1. What is the midpoint of P(-4, 9) and Q(12, 4)?
2. What is the equation of the line through A(-2, 12) and B(14, 8)?
3. What is the equation of the line parallel to $2x + 4y – 8 = 0$ which passes through the point (-8, 2)?
4. What is the equation of the line perpendicular to $y = 4x - 12$ which passes through the point (-8,2)?
5. What is the distance between the midpoint of segment AB and point C, if A(-4,2), B(8,-4) and C(4,-8)?
6. Point P is on segment AB. The measure of AP is 9 times the measure of PB. If A has coordinates (5,10) and B has coordinates (-20, 40), what are the coordinates of point P?
7. If point P(x, y) divides segment AB in a ratio of 1 :4, where A has coordinates (-4,2) and B has coordinates (-29, -42) what are the coordinates of point P?
8. What is the distance between the intersection of line $4x + 10y -12 = 0$ with line $y = -0.6x$ and the point P(-8, 20)?
9. A path runs from the midpoint of A(-10, 4) and B(12, 8) to point C(-14,-30). What is the length of the path?
10. Triangle ABC has coordinates A(-2, -6), B(5, 2) and C(8, -2). Find the perimeter of the triangle.

11. Here is the street-level floor plan of a house. The measurements are in metres. What is the price per square metre to cover the floor if the total cost is $4 796?



12.

Here is information about Mika's next hiking trip:

- average walking speed between the departure point and Camp A is 3.5 km/h
- average walking speed between Camp A and Camp B is 4.5 km/h
- average walking speed between Camp B and the destination point is 2.5 km/h
- time of departure: 8 a.m.

Given that all distances are in kilometres, determine to the nearest minute:

a) Mika's arrival time at Camp A

b) Mika's arrival time at Camp B

c) Mika's arrival time at the destination