

Unit 2: Analytic Geometry

Name: _____

- 7) Now let's take the time to define the terms once again including all information that we might need, such as formulas.

Term	Definition	Formula	Picture example
a) Slope			
b) Midpoint			
c) Median			
d) Right Bisector			
e) Altitude			
f) Perpendicular bisector			
g) Shortest distance			
h) Length of a line			
i) Circle			

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For the following questions DO NOT SOLVE. Simply write the steps required to solve each question.

- 8) One endpoint of a diameter of a circle centered on the origin is $(-4, -8)$. Find the coordinates of the other endpoint of this diameter.
- 9) A triangle has vertices $D (-3, 11)$, $E (1, -1)$, and $F (7, 9)$. Determine whether or not it is a scalene triangle.
- 10) The point $C (2, y)$ is four units from the point $(6, 3)$. Find the possible values for y .
- 11) Determine the shortest distance from the point $(5, -1)$ to the line $y=2x - 1$.
- 12) Leslie and Sophiya are hiking near Stephen Lewis Secondary school when all of a sudden someone stops them and threatens to take Leslie's iPhone! The only way this scary person will leave them is if they can tell him the equation of the median from $A(2, 4)$ and a line segment joined by points $B(-7, 6)$ and $C(-5, -2)$.