***Working with Slopes – Mixed Problems***

1. Use slopes to determine if the following sets of points form a parallelogram.

|  |  |  |  |
| --- | --- | --- | --- |
| a) |  | b) |  |

1. Use slopes to determine if the following points form a trapezoid.

|  |  |  |  |
| --- | --- | --- | --- |
| a) |  | b) |  |

1. Use slopes to determine if the following points form a right angle triangle.

|  |  |  |  |
| --- | --- | --- | --- |
| a) | L( –4, 3 ) M( –2, –3 ) N( 7, 0 ) | b) | P( –1, –3 ) Q( 3, 5 ) R( –5, 0) |

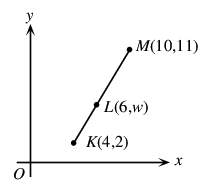
1. Do the following three points form a straight line? Justify using slopes.  
   A( 13, 18 ) B( –5, 9 ) C( 19, 21 )

ANSWERS (I think!)

1a) NO b) YES 2. a) YES b) NO

3. a) Slopes: -3, , so YES  
b) slopes: , 2, so NO  
4. Both slopes = so YES

5. KM rise = 9, run = 6 so slope =   
KL rise = ?, run = 2. So rise = 3. *w* = 5  
6. a = 3 7. (2, –7) or (–32, 19)

1. Point L lies on line segment KM as shown. What is the value of *w*? Show your work/thinking.  
   
2. If the line that passes through the point (2, 7) and (*a*, *3a*) has a slope of 2, what is the value of *a*? Show your work/thinking.
3. A line with a slope of passes through the point ( –15, 6). What is another point on the line? Explain how you got your answer.