



Writing and Reading in Math for LEP Students and All Students

Math, LEP – Grades 7-12

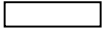



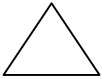

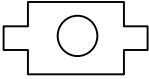
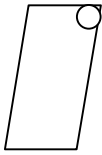
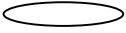




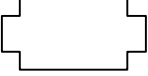
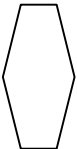





This session is intended for high school mathematics teachers who teach LEP students. Across America, students are being asked to express their thought processes in math through writing. This presentation gives teachers a viable tool to help their LEP students succeed when it comes to writing in the mathematics room. Being able to make sense of what is read will also be a focus in this presentation as we aim to translate some hieroglyphics into recognizable English. If you are willing to step out of your comfort zone and into the shoes of an LEP student for a while, then this presentation is for you.

Edwin Montijo

Lebanon, Pennsylvania

Edwin Montijo currently teaches mathematics for limited English proficient (LEP) students for the Lebanon School District in Pennsylvania. Edwin is a bilingual educator and has focused his efforts on meeting the diverse needs of foreign students. He has completed the English as a Second Language (ESL) specialist program at Penn State University. Within the past several years, Edwin has successfully taught mathematics to more than 500 first-year foreign students by applying research-based and scientifically validated LEP instructional strategies to the math curriculum. Edwin is currently wrapping up a master's degree in school administration and is planning to write a math curriculum especially designed for LEP students. He intends to further his course work through a doctorate program and aspires to eventually start an affordable private school for this population.

Hieroglyphics Activity

Hawk 	Hand 	String 	Sky 
Foot 	Feather 	Breath 	Water 
Cup 	Snake 	Knot 	Hat 
Glove 	Saucer 	Bear 	Wing 
Bell 	Lion 	Stone 	Squiggly 

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Hieroglyphics Mathematics LEP Activity

Add	Subtract	Multiply	Divide


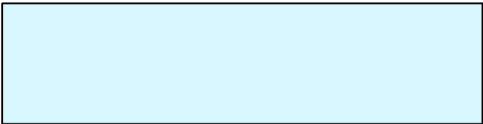

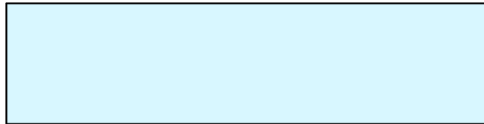
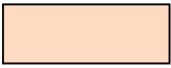
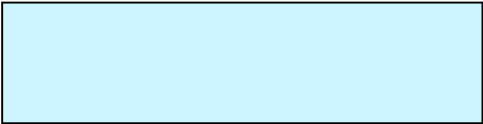
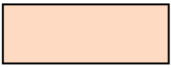
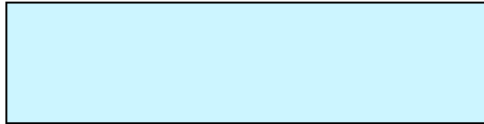
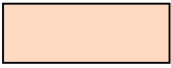

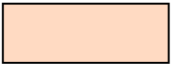

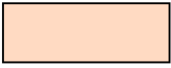

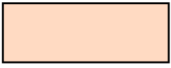





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Vocabulary Worksheet


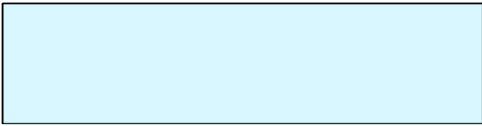

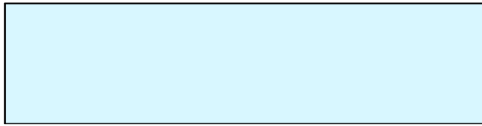
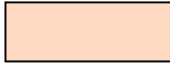

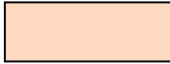

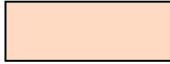

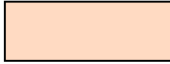

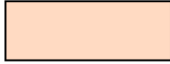

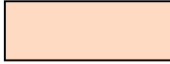





Name _____ Date _____ Class _____

Vocabulary	Definition	Example

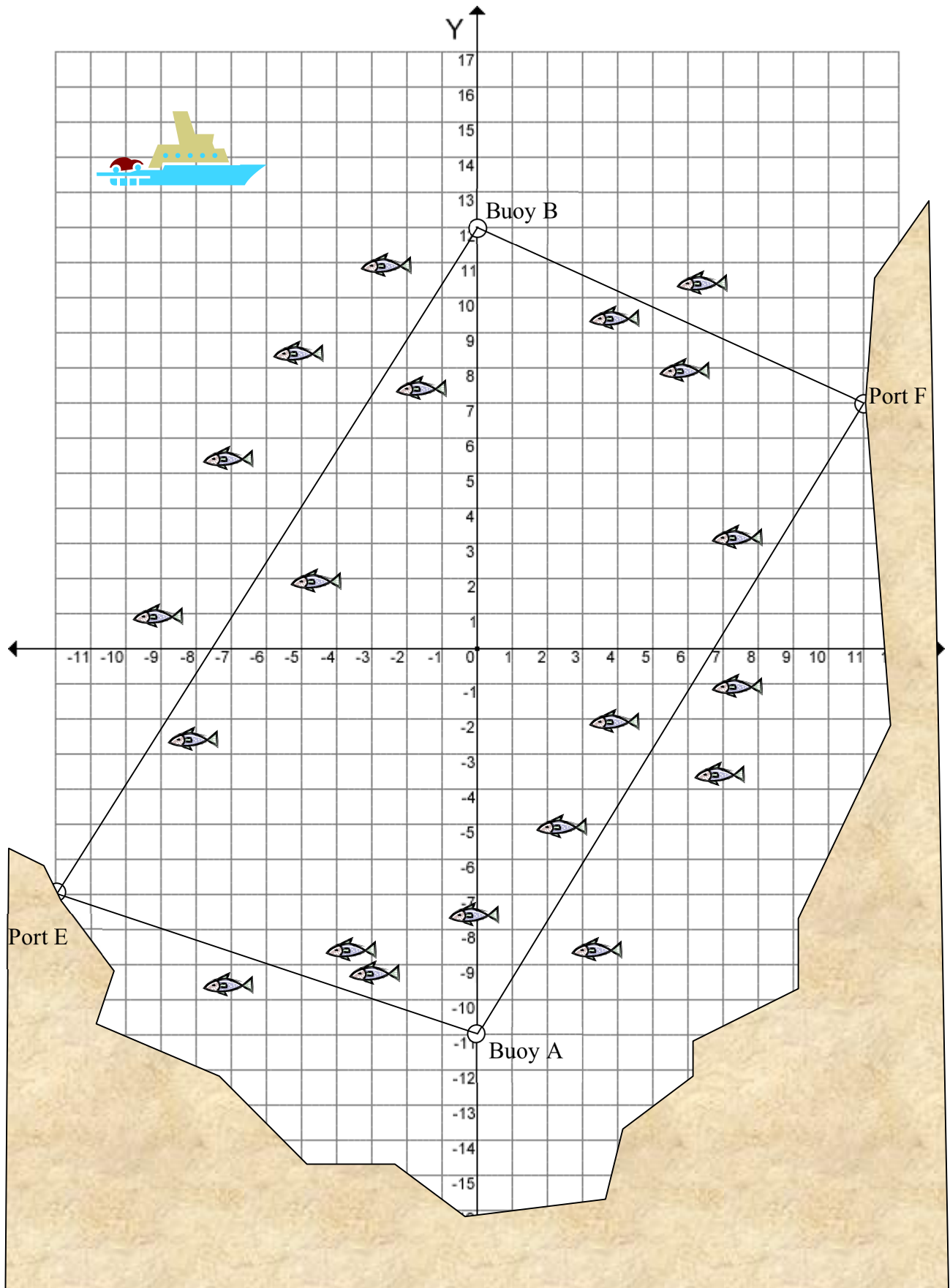
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I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 

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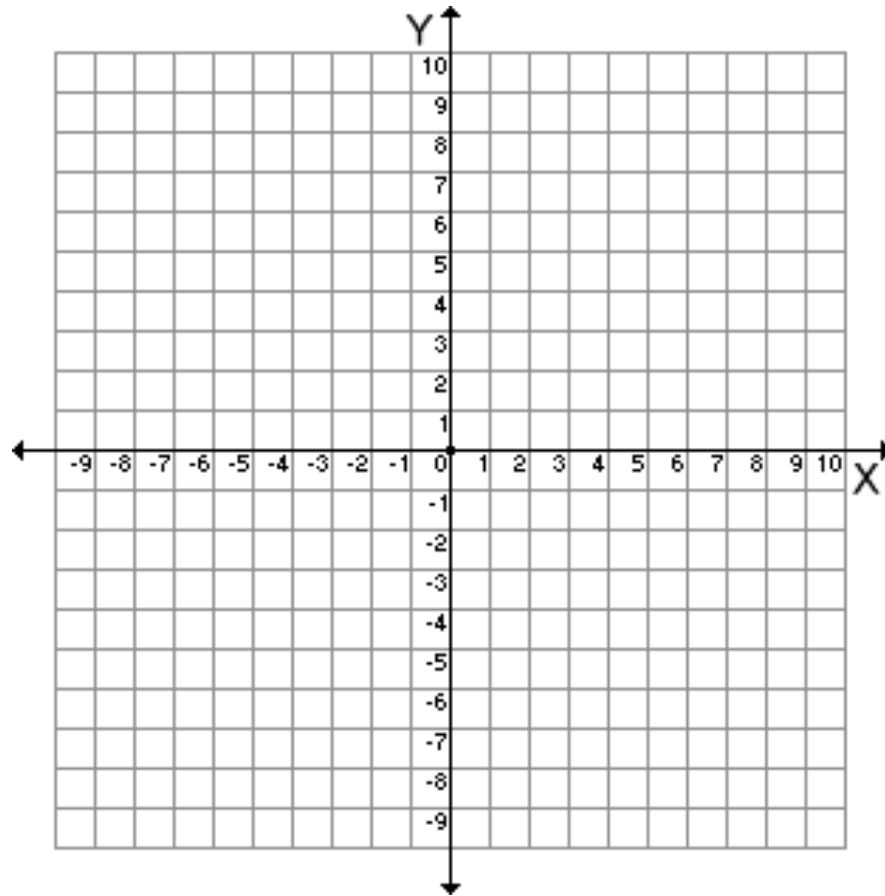
I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 
I have  Who has 	I have  Who has 

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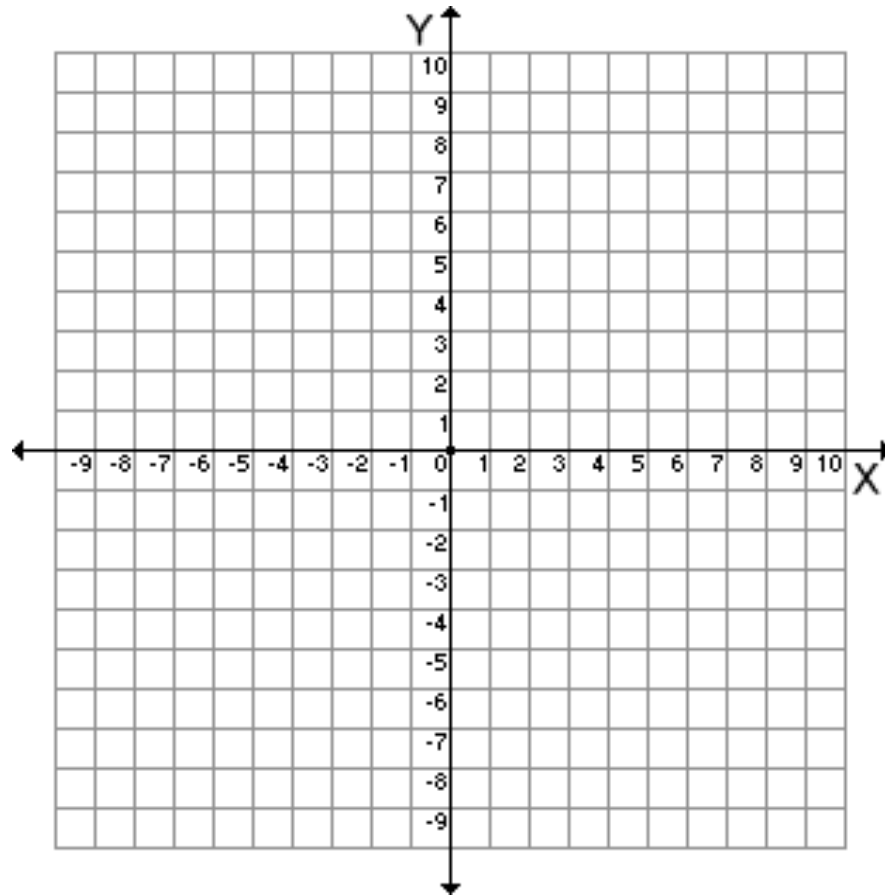
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Practice Worksheet



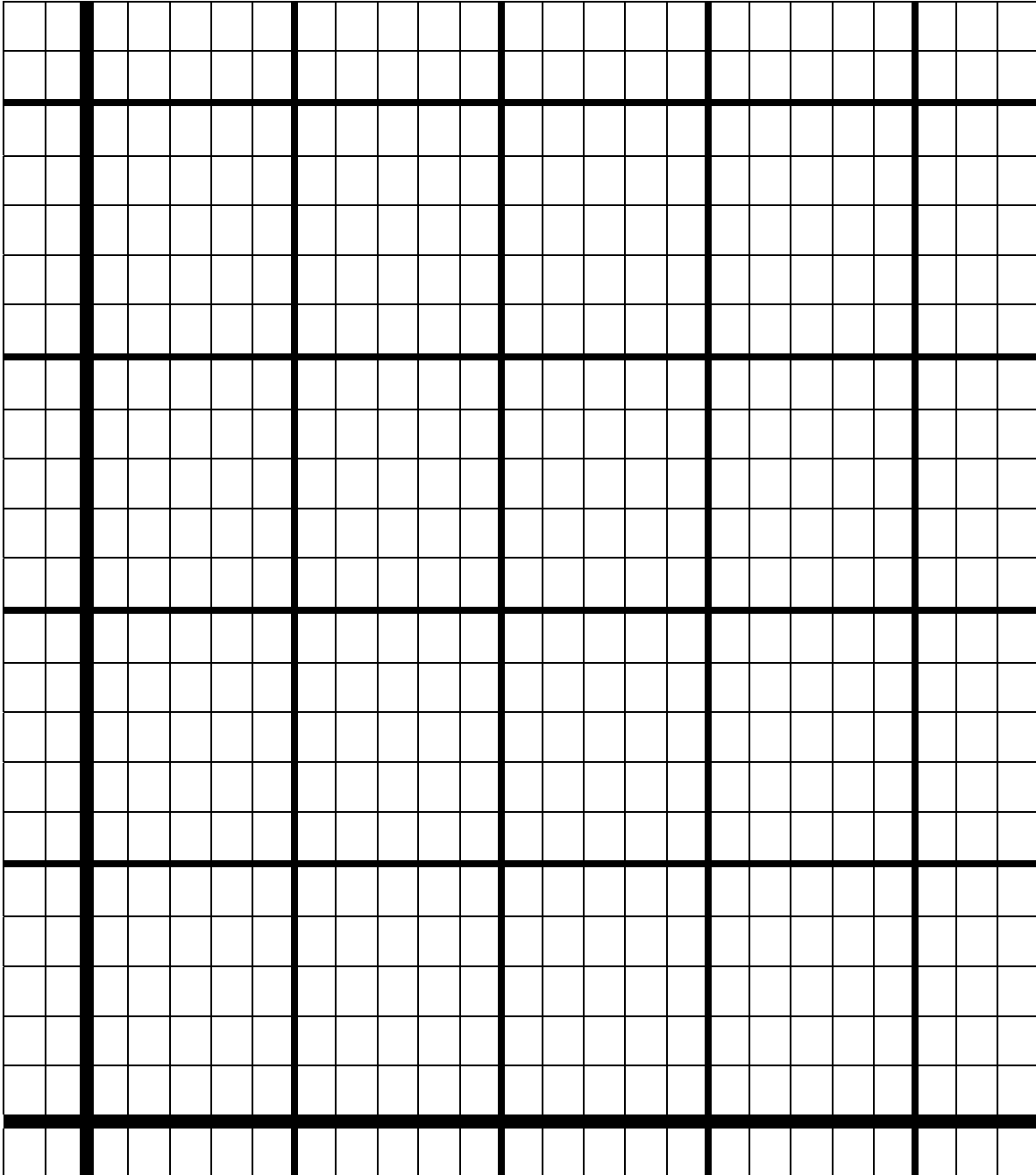
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Practice Worksheet



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y



X

Structure 1: (2,1), (7,1), (7,8), (4, 8) (4, 6), (2, 6), and (2, 1)

Structure 2: (4,10), (10, 10) (10, 17), (4, 17), and (4, 10)

Structure 3: (3, 20), (17, 20) (17, 25), (3, 25), and (3, 20)

Silo: Build a silo with a radius of 3. The silo must be at least 3 units away from any existing structure.

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Writing Activity

LEP Support

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Writing Activity

LEP Support

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Adapted from O'Malley, J. M., Pierce, L.V. Authentic Assessment for English Language Learners, 1996, Addison-Wesley Publishing Co.

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Level	Description	Definition
4	Outstanding Achievement	Understands the problem Uses the correct strategy Accurate answer (with label)
3	Advanced Achievement	Understands the problem but ignores one component of the problem Uses strategies incompletely for getting the correct answer Correct answer (no label)
2	Basic Achievement	Understands the problem but ignores more than one component of the problem Uses strategies for completing a sub-goal but does not finish the problem Parts of sub-goals accurate but overall answer is incorrect (no label)
1	Minimal Achievement	Does not identify the problem or more than one component of the problem Sub-goals not reached Wrong answers without correct sub-goals
0	Zero Achievement	No work provided

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