THE LINK
Communicating what we know about: <u>USING X AND Y INTERCEPTS TO SOLVE WORD PROBLEMS</u>

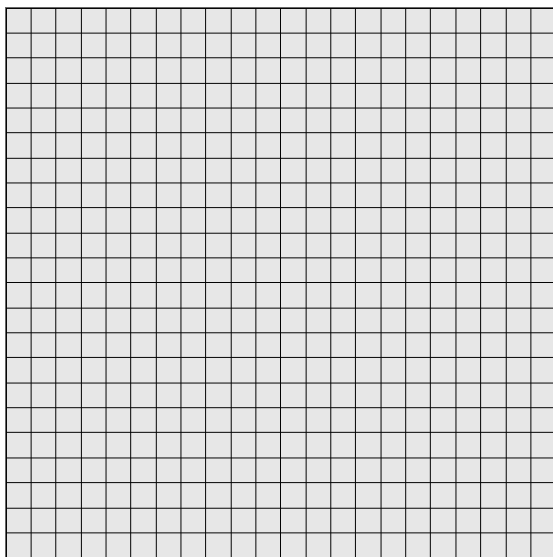| EQUATION	TABLE OF VALUES
Your school drama club is putting on a play next month. By selling tickets for the play, the club hopes to raise $600 for the drama fund for new costumes, scripts, and scenery for future plays. Let x represent the number of adult tickets they sell at $8 each, and let y represent the number o0f student tickets they sell at $5 each. **Write an equation of that best describes the word problem above.** **EQUATION:**	Show your work to complete the table by finding the x and y intercepts of the line. x – intercept (,) y – intercept (,)

x	y
0	
	0

GRAPH	COMMUNICATION
Make sure to label each axis and use proper scale to graph this situation.	**Use the gathered information to answer the questions:** 1. What is the x-intercept? What does it represent in this situation? Show your work. 2. What is the y-intercept? What does it represent in this situation? Show your work. 3. What is one possible number for adult and student tickets to sell that will make the drama club reach its goal, other than the x and y intercepts?

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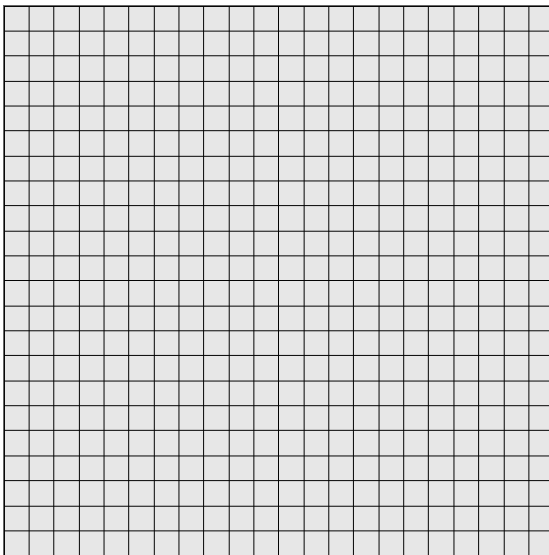| EQUATION	TABLE OF VALUES
Ms. Joyce and Miss Matthews did a lot of shopping for the dream car scrapbook project. They spent $160 on supplies. Let *x* represent the number of scrapbooks they buy at $10 each, and let *y* represent the number of sheets of stickers they buy at $4 each. **Write an equation of that best describes the word problem above.** **EQUATION:**	Show your work to complete the table by finding the *x* and *y* intercepts of the line. <table><tr><td>*x*</td><td>*y*</td></tr><tr><td>0</td><td></td></tr><tr><td></td><td>0</td></tr></table> *x* – intercept (,) *y* – intercept (,)

GRAPH	COMMUNICATION
Make sure to label each axis and use proper scale to graph this situation.	**Use the gathered information to answer the questions:** 1. What is the *x*-intercept? What does it represent in this situation? Show your work. 2. What is the *y*-intercept? What does it represent in this situation? Show your work. 3. What is a possible value for the number scrapbooks and stickers bought by Ms. Joyce and Miss Matthews that will make the total cost equal $160, other than the *x* and *y* intercepts?