## Unit 4 Lesson 3 Cumulative Practice Problems

1. There is a closed carton of eggs in Mai's refrigerator. The carton contains $e$ eggs and it can hold 12 eggs.
	1. What does the inequality $e<12$ mean in this context?
	2. What does the inequality $e>0$ mean in this context?
	3. What are some possible values of $e$ that will make both $e<12$ and $e>0$ true?
2. Here is a diagram of an unbalanced hanger.
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	1. Write an inequality to represent the relationship of the weights. Use $s$ to represent the weight of the square in grams and $c$ to represent the weight of the circle in grams.
	2. One red circle weighs 12 grams. Write an inequality to represent the weight of one blue square.
	3. Could 0 be a value of $s$? Explain your reasoning.
1. Here is an inequality: $-3x>18$.
	1. List some values for $x$ that would make this inequality true.
	2. How are the solutions to the inequality $-3x\geq 18$ different from the solutions to $-3x>18$? Explain your reasoning.
2. Tyler has more than $10. Elena has more money than Tyler. Mai has more money than Elena. Let $t$ be the amount of money that Tyler has, let $e$ be the amount of money that Elena has, and let $m$ be the amount of money that Mai has. Select **all** statements that are true:
	1. $t<j$
	2. $m>10$
	3. $e>10$
	4. $t>10$
	5. $e>m$
	6. $t<e$
3. For each inequality, find two values for $x$ that make the inequality true and two values that make it false.
	1. $x+3>70$
	2. $x+3<70$
	3. $-5x<2$
	4. $5x<2$



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