### Lesson 8 Practice Problems

1. Here is a hanger:
	1. Write an equation to represent the hanger.
	2. Solve the equation by reasoning about the equation or the hanger. Explain your reasoning.
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1. Explain how each part of the equation $9=3\left(x+2\right)$ is represented in the hanger.
	* $x$
	* 9
	* 3
	* $x+2$
	* $3\left(x+2\right)$
	* the equal sign
* 
1. Select the word from the following list that best describes each situation.
	1. You deposit money in a savings account, and every year the amount of money in the account increases by 2.5%.
	2. For every car sold, a car salesman is paid 6% of the car’s price.
	3. Someone who eats at a restaurant pays an extra 20% of the food price. This extra money is kept by the person who served the food.
	4. An antique furniture store pays $200 for a chair, adds 50% of that amount, and sells the chair for $300.
	5. The normal price of a mattress is $600, but it is on sale for 10% off.
	6. For any item you purchase in Texas, you pay an additional 6.25% of the item's price to the state government.
	7. Tax
	8. Commission
	9. Discount
	10. Markup
	11. Tip or gratuity
	12. Interest
* (From Unit 4, Lesson 11.)
1. Clare drew this diagram to match the equation $2x+16=50$, but she got the wrong solution as a result of using this diagram.
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* 1. What value for $x$ can be found using the diagram?
	2. Show how to fix Clare’s diagram to correctly match the equation.
	3. Use the new diagram to find a correct value for $x$.
	4. Explain the mistake Clare made when she drew her diagram.
* (From Unit 6, Lesson 3.)



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