### Lesson 8 Practice Problems

1. A car dealership pays $8,350 for a car. They mark up the price by 17.4% to get the retail price. What is the retail price of the car at this dealership?
2. A store has a 20% off sale on pants. With this discount, the price of one pair of pants before tax is $15.20. What was the original price of the pants?
	1. $3.04
	2. $12.16
	3. $18.24
	4. $19.00
3. A music store marks up the instruments it sells by 30%.
	1. If the store bought a guitar for $45, what will be its store price?
	2. If the price tag on a trumpet says $104, how much did the store pay for it?
	3. If the store paid $75 for a clarinet and sold it for $100, did the store mark up the price by 30%?
4. A family eats at a restaurant. The bill is $42. The family leaves a tip and spends $49.77.
	1. How much was the tip in dollars?
	2. How much was the tip as a percentage of the bill?
5. The price of gold is often reported per ounce. At the end of 2005, this price was $513. At the end of 2015, it was $1060. By what percentage did the price per ounce of gold increase?
6. A phone keeps track of the number of steps taken and the distance traveled. Based on the information in the table, is there a proportional relationship between the two quantities? Explain your reasoning.

| * number of steps
 | * distance in kilometers
 |
| --- | --- |
| * 950
 | * 1
 |
| * 2,852
 | * 3
 |
| * 4,845
 | * 5.1
 |

*
* (From Unit 5, Lesson 4.)
1. A college student takes out a $7,500 loan from a bank. What will the balance of the loan be after one year (assuming the student has not made any payments yet):
	1. if the bank charges 3.8% interest each year?
	2. if the bank charges 5.3% interest each year?
* (From Unit 6, Lesson 6.)
1. Match the situations with the equations.
	1. Mai slept for $x$ hours, and Kiran slept for $\frac{1}{10}$ less than that.
	2. Kiran practiced the piano for $x$ hours, and Mai practiced for $\frac{2}{5}$ less than that.
	3. Mai drank $x$ oz of juice and Kiran drank $\frac{4}{3}$ more than that.
	4. Kiran spent $x$ dollars and Mai spent $\frac{1}{4}$ less than that.
	5. Mai ate $x$ grams of almonds and Kiran ate 1.5 times more than that.
	6. Kiran collected $x$ pounds of recycling and Mai collected $\frac{3}{10}$ less than that.
	7. Mai walked $x$ kilometers and Kiran walked $\frac{3}{8}$ more than that.
	8. Kiran completed $x$ puzzles and Mai completed $\frac{3}{5}$ more than that.
* $y=2.33x$
* $y=1.375x$
* $y=0.6x$
* $y=0.9x$
* $y=0.75x$
* $y=1.6x$
* $y=0.7x$
* $y=2.5x$
* (From Unit 6, Lesson 2.)



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