Lesson 7 Practice Problems

1. What is the final elevation if

   a. A bird starts at 20 m and changes 16 m?

   b. A butterfly starts at 20 m and changes -16 m?

   c. A diver starts at 5 m and changes -16 m?

   d. A whale starts at -9 m and changes 11 m?

   e. A fish starts at -9 meters and changes -11 meters?

2. One of the particles in an atom is called an electron. It has a charge of -1. Another particle in an atom is a proton. It has charge of +1. The charge of an atom is the sum of the charges of the electrons and the protons. A carbon atom has an overall charge of 0, because it has 6 electrons and 6 protons and $-6 + 6 = 0$. Find the overall charge for the rest of the elements on the list.

	charge from electrons	charge from protons	overall charge
carbon	-6	+6	0
neon	-10	+10	
oxide	-10	+8	
copper	-27	+29	
tin	-50	+50	

3. Add.

   $14.7 + 28.9$ $-9.2 + 4.4$ $-81.4 + (-12)$ $51.8 + (-0.8)$

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4. Select **all** the true statements.

    A. -5 < |-5|

    B. |-6| < -5

    C. |-6| < 3

    D. 4 < |-7|

    E. |-7| < |-8|

(From Unit 7, Lesson 5.)

5. Last week, the price, in dollars, of a gallon of gasoline was g. This week, the price of gasoline per gallon increased by 5%. Which expressions represent this week's price, in dollars, of a gallon of gasoline? Select **all** that apply.

    A. $g + 0.05$

    B. $g + 0.05g$

    C. $1.05g$

    D. $0.05g$

    E. $(1 + 0.05)g$

(From Unit 6, Lesson 5.)

6. A family goes to a restaurant. When the bill comes, this is printed at the bottom of it:

How much was the price of the meal? Explain your reasoning.

Gratuity Guide For Your Convenience:
    15% would be $4.89
    18% would be $5.87
    20% would be $6.52

(From Unit 6, Lesson 7.)

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