### Lesson 3 Practice Problems

1. What is the final elevation if
	1. A bird starts at 20 m and changes 16 m?
	2. A butterfly starts at 20 m and changes -16 m?
	3. A diver starts at 5 m and changes -16 m?
	4. A whale starts at -9 m and changes 11 m?
	5. 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 fromelectrons
 | * charge fromprotons
 | * overallcharge
 |
| --- | --- | --- | --- |
| * carbon
 | * -6
 | * +6
 | * 0
 |
| * neon
 | * -10
 | * +10
 |  |
| * oxide
 | * -10
 | * +8
 |  |
| * copper
 | * -27
 | * +29
 |  |
| * tin
 | * -50
 | * +50
 |  |

1. Add.
* $14.7+28.9$
* $-9.2+4.4$
* $-81.4+\left(-12\right)$
* $51.8+\left(-0.8\right)$
1. 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.
	1. $g+0.05$
	2. $g+0.05g$
	3. $1.05g$
	4. $0.05g$
	5. $\left(1+0.05\right)g$
* (From Unit 4, Lesson 8.)
1. Decide whether each table could represent a proportional relationship. If the relationship could be proportional, what would be the constant of proportionality?
	1. Annie’s Attic is giving away $5 off coupons.

| * + original price
 | * + sale price
 |
| --- | --- |
| * + $15
 | * + $10
 |
| * + $25
 | * + $20
 |
| * + $35
 | * + $30
 |

* 1. Bettie's Boutique is having a 20% off sale.

| * + original price
 | * + sale price
 |
| --- | --- |
| * + $15
 | * + $12
 |
| * + $25
 | * + $20
 |
| * + $35
 | * + $28
 |

* (From Unit 2, Lesson 7.)



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