### Lesson 9 Practice Problems

1. Use a protractor to try to draw each triangle. Which of these three triangles is impossible to draw?
   1. A triangle where one angle measures and another angle measures
   2. A triangle where one angle measures and another angle measures
   3. A triangle where one angle measures and another angle measures
2. A triangle has an angle measuring , an angle measuring , and a side that is 6 units long. The 6-unit side is in between the and angles.
   1. Sketch this triangle and label your sketch with the given measures.
   2. How many unique triangles can you draw like this?
   3. Find a value for that makes less than .
   4. Find a value for that makes greater than .

* (From Unit 5, Lesson 13.)

1. One of the particles in atoms is called an electron. It has a charge of -1. Another particle in atoms is a proton. It has charge of +1.

* The overall charge of an atom is the sum of the charges of the electrons and the protons. Here is a list of common elements.

|  | * charge from electrons | * charge from protons | * overall charge |
| --- | --- | --- | --- |
| * carbon | * -6 | * +6 | * 0 |
| * aluminum | * -10 | * +13 |  |
| * phosphide | * -18 | * +15 |  |
| * iodide | * -54 | * +53 |  |
| * tin | * -50 | * +50 |  |

* Find the overall charge for the rest of the atoms on the list.
* (From Unit 5, Lesson 3.)

1. A factory produces 3 bottles of sparkling water for every 7 bottles of plain water. If those are the only two products they produce, what percentage of their production is sparkling water? What percentage is plain?

* (From Unit 4, Lesson 3.)



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