Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Harry and the Lizzard Gizzard**

“Harry, we have to have 2 lizzard gizzards, or we cannot make the aging potion.” Hermione sighed.

“But, but, but…” Harry stuttered, “Snape is the only person at Hogworts who has any lizard gizzards. And we both know he will never give them to us.”

“Let’s go over and see if he might change his mind.” Hermione said under her breath.

Harry, Ron, and Hermione went over to Snape’s lab, and found that he was not there. However, there was a sign on the door. They tiptoed over, and read it.

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| --- |
| **Do Not Enter**  If you need supplies, I will trade as follows:  10 mummified toenails = 7 toe of frog  9 toe of frog = 1 oz mint  6 oz gargoyle sweat = 4 toe of frog  5 bat whiskers = 4 oz mint  8 mugwort leaves = 1 oz cat fat  1 lizzard gizzard = 2 mugwort leaves  6 oz cat fat = 2 bat whiskers |

“Do you have anything to trade Hermione,” asked Harry?

“I have 3 mummified toenails, but that is it,” replied Hermione.

“How many lizard gizzards could we get with the 3 mummified toenails,” asked Harry.

“Ron is really good at dimensional analysis,” said Hermione. “Let’s go ask him.”

**Can you help Ron with this problem? (Will 3 mummified toenails get them their needed lizard’s gizzards?)**

**If they had 3 ounces of gargoyle sweat, how many mugwort leaves could they get?**

**Now you try some real life ones…**

1. **How many minutes are in an average lifespan, 78.74 years?**

**2. How many seconds (s) is this?**

**3. How many milliseconds (ms) is this?**

**4. Use dimensional analysis to do this one: How many centiliters (cL) are in a kiloliter (kL)?**