Let’s go, polliwogs!

In just two months, you will be traveling to take part in the World Math Olympiad Championships.

I will not have you embarrass my beloved Academy by failing to perform the most basic of conversions.

You will be expected to convert quickly between fractions, decimals, and percents.

Begin by converting each of these percents into a decimal.

35%
430%
0.05%

We know how to convert percents to fractions. And we know how to convert fractions to decimals.

...then change the fractions into decimals!

So, we can write the percents as fractions...

Get to it then, tadpoles!

Try all three.
35% is $\frac{35}{100}$, which is 0.35, sir!

430% is $\frac{430}{100}$, or 4 $\frac{30}{100}$.
That’s 4 $\frac{3}{10}$, or 4.3, sir!

35% = $\frac{35}{100}$
= 0.35

430% = $\frac{430}{100}$
= $4 \frac{30}{100}$
= $4 \frac{3}{10}$
= 4.3

0.05% = $\frac{0.05}{100}$
= $\frac{5}{10,000}$
= 0.0005

0.05% is $\frac{0.05}{100}$, which is $\frac{5}{10,000}$.

To write $\frac{5}{10,000}$ as a decimal, we put a 5 in the 10,000ths place, sir! 0.05% = 0.0005.

Affirmative. If you can convert a percent to a decimal, you can convert a decimal to a percent.

Convert each of these decimals to a percent.

0.08
0.4
0.00246

Try all three.
$0.08 = \frac{8}{100} = 8\%$

$0.08$ is $\frac{8}{100}$, which is $8\%$, sir!

Next, we need to find out what number over $100$ equals $0.00246$.

We can write an equation.

$0.00246 = \frac{x}{100}$

Multiplying both sides of the equation by $100$, we get $0.246 = x$.

So, $0.00246$ equals $0.246$ over $100$...

...which means $0.00246$ is $0.246\%$, sir.

Notice any patterns?

Good work, hammerhead. Who sees a pattern in these conversions?

That’s $40\%$, sir!