Mixed Numbers

What?

A 5-pack of Fun-Doh weighs 16 ounces.

So? So... How could 5 cans of Fun-Doh weigh 16 ounces!?

That’s weird.

What?

If I divide 16 ounces of Fun-Doh equally into 5 cans, each can gets 3 ounces.

But, there is an ounce left over.

What happens to the extra ounce?

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\begin{array}{c}
5 \longdiv{16} \\
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15 \\
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1
\end{array}
\]

How much does a can of Fun-Doh weigh?
Each can holds the same amount. So, the last ounce is divided equally among the 5 cans.

So, there are \(3\frac{1}{5}\) ounces of Fun-Doh in each can?

Yup. Each can has an additional \(\frac{1}{5}\) ounce.

We can write the result of division as a fraction or a mixed number instead of a quotient and a remainder.

I’m gonna need to see another example.

Clearance 2-Sleeved Shirts

6-Legged Pants

4-Legged Pants

Take a look at this can of soup.

It holds 26 ounces, and says it will serve 3 monsters. How many ounces are in each serving?

I need to divide the number of ounces by the number of servings...

...26 ÷ 3.

Right, but since 26 is not divisible by 3, we write the number of ounces as a fraction or a mixed number.
26 ÷ 3 = \frac{26}{3}.

So, each serving is \frac{26}{3} ounces.

That’s right.

It’ll be easier to tell if we convert \frac{26}{3} to a mixed number.

We know that \frac{24}{3} = 8.

So, \frac{26}{3} is just \frac{24}{3} + \frac{2}{3}.

So, \frac{26}{3} ounces is 8 + \frac{2}{3} = 8\frac{2}{3} ounces.

That makes sense.

If I divide 26 ounces of soup into 3 equal servings, each serving gets 8 whole ounces.

That leaves 2 ounces to split 3 ways.

So, each serving gets another 2 ÷ 3 = \frac{2}{3} ounce.

That makes 8 + \frac{2}{3} = 8\frac{2}{3} ounces of soup in each serving.
That's great!

To convert \( \frac{26}{3} \) into a mixed number, we can use the quotient and remainder of \( 26 \div 3! \)

The quotient gives us the whole number part, and the remainder gives us the numerator of the fraction.

The denominator is the same as in the original fraction. \( \frac{26}{3} = 8 \frac{2}{3} \).

Try \( \frac{80}{7} \).

80÷7 has quotient 11 and remainder 3.

So, \( \frac{80}{7} = 11 \frac{3}{7} \).

Now we know how to change a fraction into a mixed number.

How do we change a mixed number back to a fraction?

I don’t know, but I bet we can figure it out.

Let’s try \( 3 \frac{3}{5} \).
So, $3\frac{4}{5} = \frac{18}{5} + \frac{4}{5} = \frac{19}{5}$.

And $3 = \frac{15}{5}$.

$3\frac{4}{5}$ is $3 + \frac{4}{5}$.

I could use some new sunglasses.

They never carry my style.