



THE MATHS IN MUSIC

Whole numbers and fractions are everywhere when it comes to music and are especially important as they enable musicians to read music and interpret the length of a note easily.



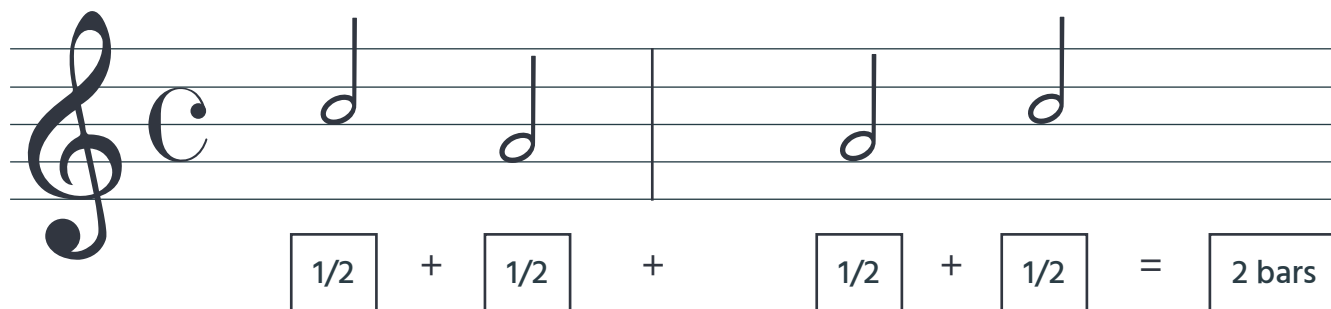
Take a look at the key here:

	SEMIBREVE	WHOLE	
	MINIM	HALF	
	CROTCHET	QUARTER	
	QUAVER	EIGHTH	

- ★ When people write music, they break the piece down into bars (or 'measures').
- ★ In four quarter time, a bar is the length of one whole note ('semibreve').

1 bar = 1

Bars are separated with a vertical line like this:



In the above example, we can clearly see that we have 2 bars. We have 2 minims ($1/2 + 1/2$) which equals 1 bar. Add another 2 minims ($1/2 + 1/2$) which equals 1 bar. So in total we have 2 bars.

However, our composer has been a little lazy and has forgotten to add the bar lines to the following sheet of music! We will have to use our knowledge of fractions to figure out how many bars we have instead.

NOTE

We will be using four quarter time for our activities today.



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For example:

$\frac{1}{2} + \frac{1}{2} = 1 \text{ bar}$

And:

$\frac{1}{2} + \frac{1}{2} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 2 \text{ bars}$

ACTIVITY 1

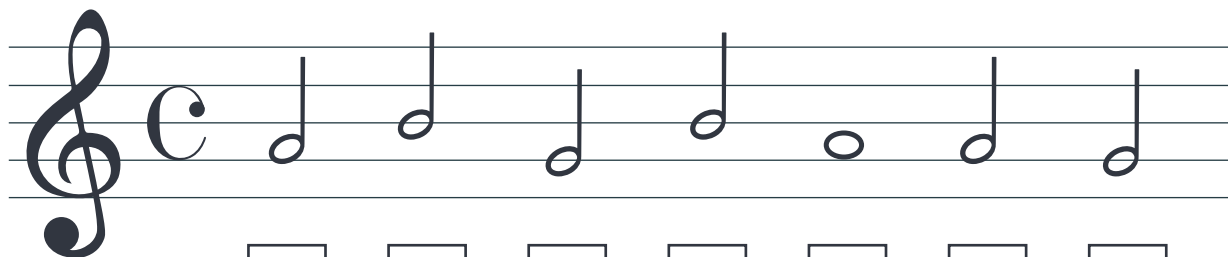
Using your fractions skills, try to work out how many bars long each of these pieces of music is.

$\square + \square + \square + \square + \square + \square + \square = \square$



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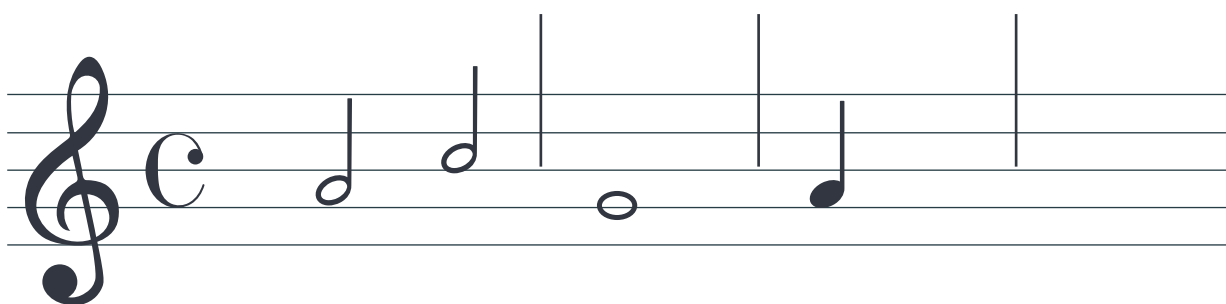
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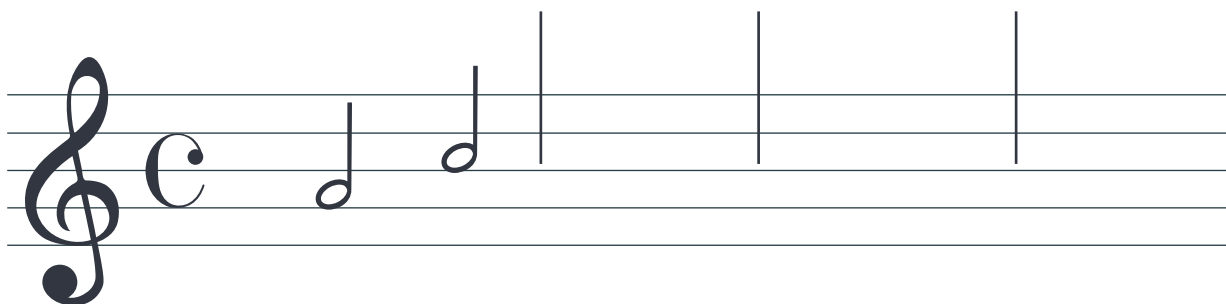
$$\square + \square + \square + \square + \square + \square + \square = \square$$

ACTIVITY 2

Each of these pieces of music need to be four bars long. Can you add your own notes to complete the piece?



= 4



= 4