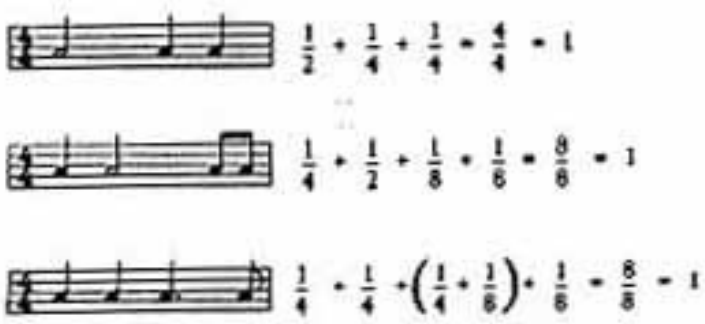
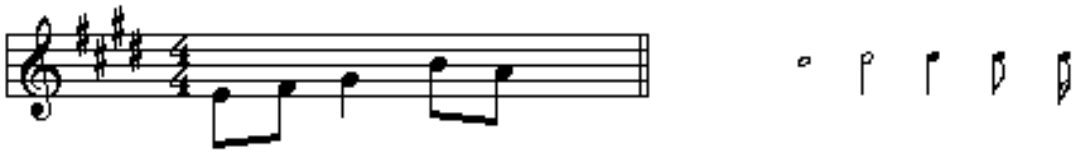
## Application: Music

One connection between math and music that jumps out at you is the time signature. Note values are fractions (quarter, sixteenth), so a dotted note means multiply the value by 1.5. Below are some examples



In the following example, circle the missing note:



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Answer: In this example, the time signature states that the note total for one measure must be 4/4. Using number theory, the notes shown so far add as follows:

1/8 + 1/8 + 1/4 + 1/8 + 1/8 = 3/4

4/4 minus 3/4 equals 1/4, so the missing note must be a quarter note.