Subject: Octave in Hertz
Posted by Nisha on Thu, 04 Jul 2013 13:39:46 GMT
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I read in an article that the term 'octave' can be used to measure the difference in Hertz between two sounds. An octave is the difference between one sound and another that has double (or half) the frequency. E.g. 2500Hz and 5000Hz differs one octave. The bands in some nifty car equalizers differ one third of an octave.

Subject: Re: Octave in Hertz
Posted by Wayne Parham on Thu, 04 Jul 2013 16:53:23 GMT
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That's right. An octave is a span of 2x frequency. A decade is a span of 10x frequency.

Subject: Re: Octave in Hertz
Posted by gofar99 on Thu, 04 Jul 2013 16:53:28 GMT
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Hi, Correct. An octave is twice or half of a given frequency. Even better gear goes to 1/6 and 1/10 octave.

Subject: Re: Octave in Hertz
Posted by audioaudio90 on Tue, 16 Jul 2013 17:11:59 GMT
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I knew octaves were twice (or half) the frequency, but I was not aware of decades. I'm surprised that term never came up in school. Of course, it's possible that it did and I wasn't paying attention that day.

Subject: Re: Octave in Hertz
Posted by Kingfish on Tue, 20 Aug 2013 22:23:27 GMT
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I vaguely remember the term decade in my music composition class in junior high school. I feel fortunate that they really went in depth with all aspects of music. There's a lot to it most people don't know.

Subject: Re: Octave in Hertz
Posted by RustyC on Thu, 23 Jan 2014 22:35:27 GMT
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I just love it when music and science collide. I've always wondered how those early piano makers, who surely couldn't measure frequency with any accuracy in the early 1700's, managed to get those octaves to match the frequency numbers like that. But using human ears, they figured out that certain notes sound alike and always resonate.

Subject: Re: Octave in Hertz
Posted by Nymeria on Sat, 20 Sep 2014 12:18:06 GMT
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RustyC wrote on Thu, 23 January 2014 16:35I just love it when music and science collide. I've always wondered how those early piano makers, who surely couldn't measure frequency with any accuracy in the early 1700's, managed to get those octaves to match the frequency numbers like that. But using human ears, they figured out that certain notes sound alike and always resonate.

Music IS science, and math, and art all at once. It is a beautiful thing. As for the piano makers, clearly they have better ears than I do.

Subject: Re: Octave in Hertz
Posted by Yurimi on Mon, 18 Apr 2016 10:50:09 GMT
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Thank you for the interesting information! It's strange that I've never heard of this despite studying music for a while back then. I thought octave is a strictly musical term, only for notes with similar sound after certain period. It is indeed nice to see both music relates to many other aspects of life!

Subject: Re: Octave in Hertz
Posted by dreamer13 on Tue, 26 Apr 2016 08:30:28 GMT
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Such an interesting post. It reminds me that there are also variations to octaves. In music theory, 13 semitones higher is called an augmented octave, while 11 semitones higher is a diminished octave. The double-or-half-frequency theory becomes slightly different, though.