

Re: Trisecting an arbitrary angle

Source: <http://sci.tech-archive.net/Archive/sci.math/2005-07/msg02908.html>

- *From:* Jean-Claude Arbaut <jean-claude.arbaut@xxxxxxxxxxxxx>
 - *Date:* Tue, 19 Jul 2005 14:02:16 +0200
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Le 19/07/05 12:37, dans 4dd7d\$42dcd769\$d52f93dc\$25956@xxxxxxxxxxxxxxxxx,
« Jutta Gut » <gut.jutta.gerhard@xxxxxxxxx> a écrit :

>
> "bassam king karzeddin" <bassam@xxxxxxxxx> schrieb im Newsbeitrag
> <news:29354512.1121766911405.JavaMail.jakarta@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
>> That is grate,
>>
>> This,might open doors to constructible polygons
>>
>> In fact,I have deduced & proved the same thing,I have mentioned that here:
>>
>> <http://mathforum.org/kb/message.jspa?messageID=3802920&tstart=0>
>>
>> I will provide examples soon.
>
> If I understand correctly, you have shown that in an triangle with
> the sides a^3 , $a*(b^2-a^2)$, $b*(b^2-2*a^2)$ one angle is three times
> another one.
>
> The more interesting question would be: given an angle, how to
> construct a triangle with the sides a^3 , $a*(b^2-a^2)$, $b*(b^2-2*a^2)$
> and the given angle?

It tried for some simple angles: $\pi/8$, $\pi/6$, $\pi/5$, sides can be computed with square roots. For $\pi/9$, you have the 3rd degree equation $x^3=3*x+1$. Not surprising, since $\pi/9$ is not constructible. But it's still interesting to know which triangles have two angles A,B such that $A=3*B$.

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- *References:*
 - ◆ ***Trisecting an arbitrary angle***
 - ◇ *From:* bassam king karzeddin

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 - ◇ *From:* bassam king karzeddin
- ◆ *Re: Trisecting an arbitrary angle*
 - ◇ *From:* Jutta Gut

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