

# Re: Rel. Speed

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*Source:* <http://sci.tech--archive.net/Archive/sci.physics.relativity/2007-06/msg03332.html>

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- *From:* "razyrel" <[razyrel@xxxxxxxxxxxxxxxxxxxxx](mailto:razyrel@xxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Thu, 28 Jun 2007 07:23:58 +0200
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"N:dlzc D:aol T:com (dlzc)" <[dlzc@xxxxxxx](mailto:dlzc@xxxxxxx)> wrote in message [news:eoHgi.472804\\$115.245105@xxxxxxxxxxxxxxxx](mailto:news:eoHgi.472804$115.245105@xxxxxxxxxxxxxxxx)

Dear rayzel:

"razyrel" <[razyrel@xxxxxxxxxxxxxxxxxxxxx](mailto:razyrel@xxxxxxxxxxxxxxxxxxxxx)> wrote in message [news:f5vdmj\\$quq\\$1@xxxxxxxxxxx](mailto:news:f5vdmj$quq$1@xxxxxxxxxxx)

...

Ok, then  
how is the situation in the following extension of the  
above experiment:

the ship shoots a torpedo that has an instant speed  
of  $0.4c$ , into the front direction of the ship, and a  
second one of the same kind to the rear direction;  
both shot exactly at the same time (ie. at the same  
location) as in the scenario above. How far away,  
relative to the stationary observer, will each of these  
torpedos be after 10 seconds (in  $c$  units)?  
Is it  $0.4 \cdot 10 = 4c$  for both torpedos, or will they differ?

You say  $0.4c$ ... is that as measured by the ship travelling at  $0.8c$ ?

Let's say it is the property of these rockets,  
ie. they are that fast if fired from rest (ie. if the ship's  $v=0$ ).

<http://hermes.physics.adelaide.edu.au/~dkoks/Faq/Relativity/SR/rocket.html>

You say 10 seconds... is that measured by the stationary observer?

Yes

They could differ, depending on your answers.

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Would be interesting to analyse the differences.

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