

# Harmonic Mean

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$$H = \frac{n}{\sum_{i=1}^n \frac{1}{a_i}} = \frac{na_1 \cdots a_n}{\sum_{i=1}^n \frac{a_1 \cdots a_n}{a_i}} \quad (a_1, \cdots, a_n > 0)$$

# Harmonic Mean

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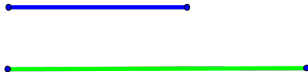
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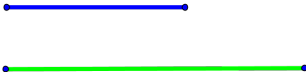
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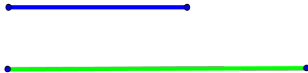
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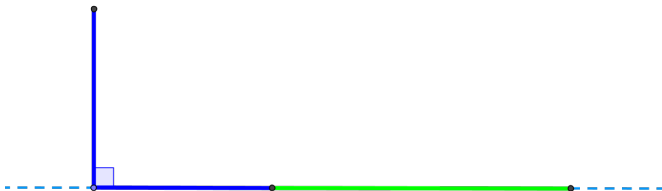
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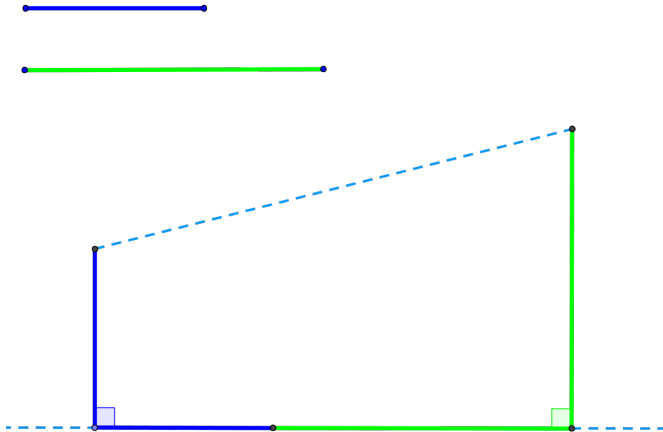
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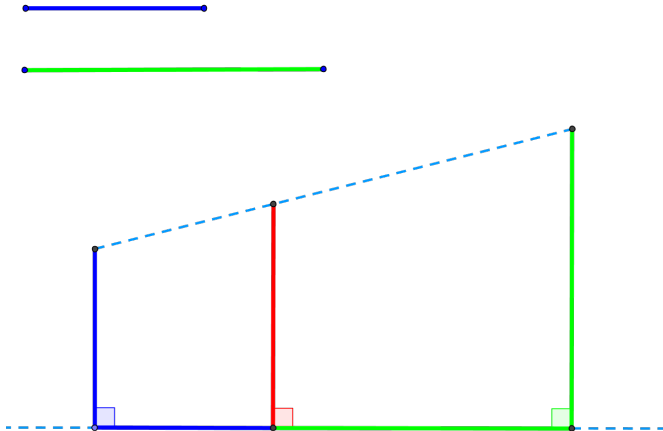
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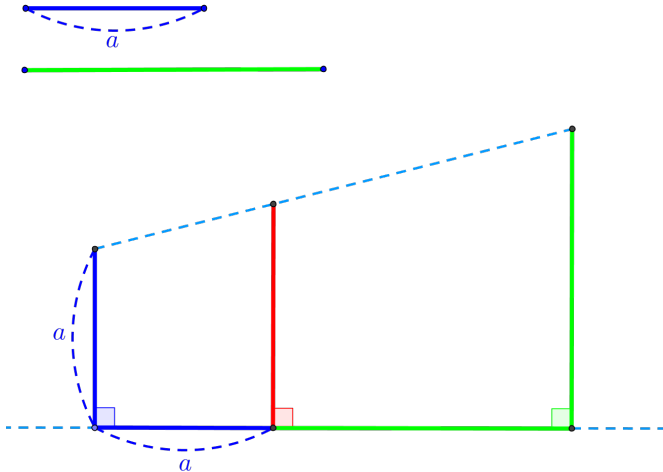
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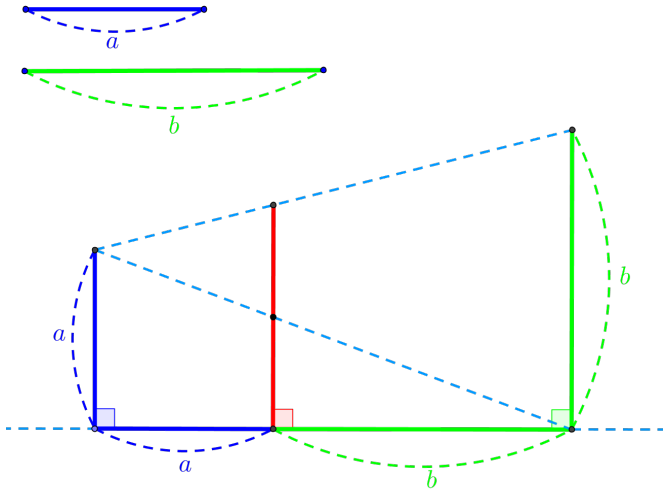
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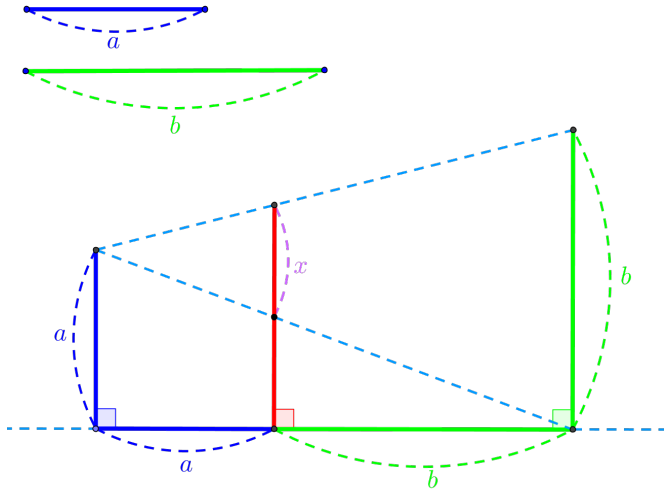
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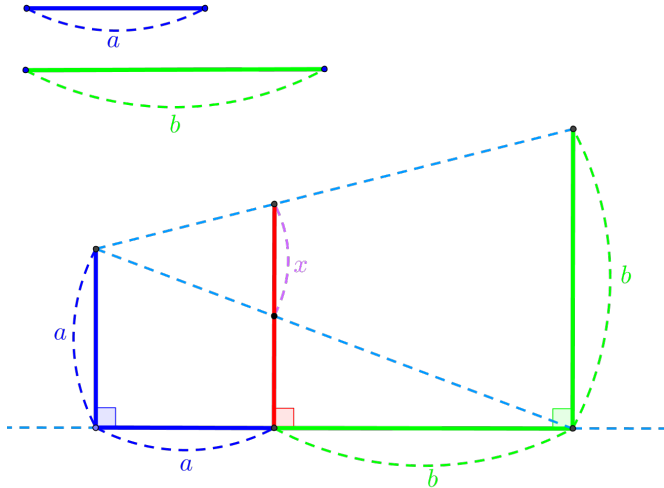
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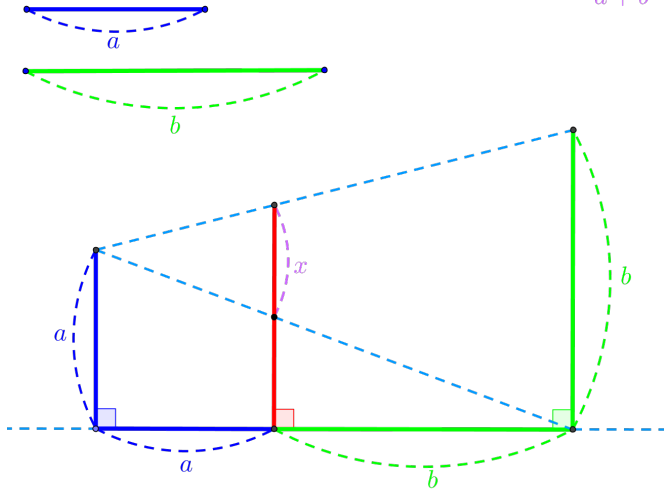
$$a : x = a + b : b$$



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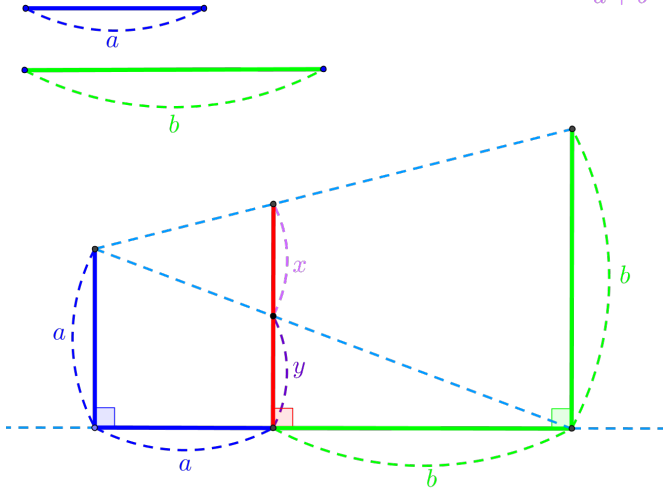
$$a : x = a + b : b \quad x = \frac{ab}{a+b}$$



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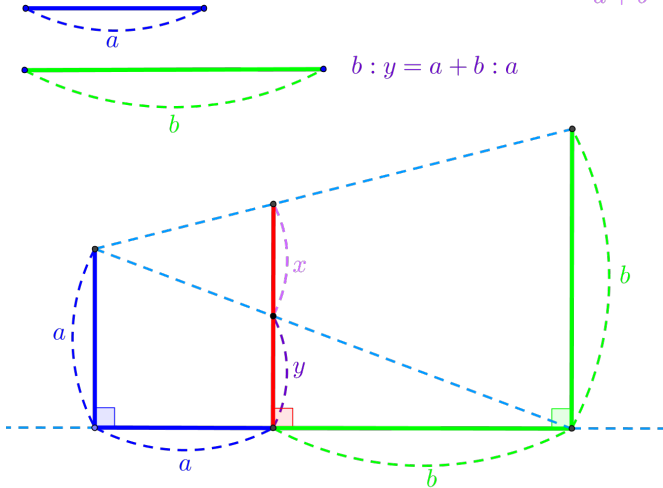


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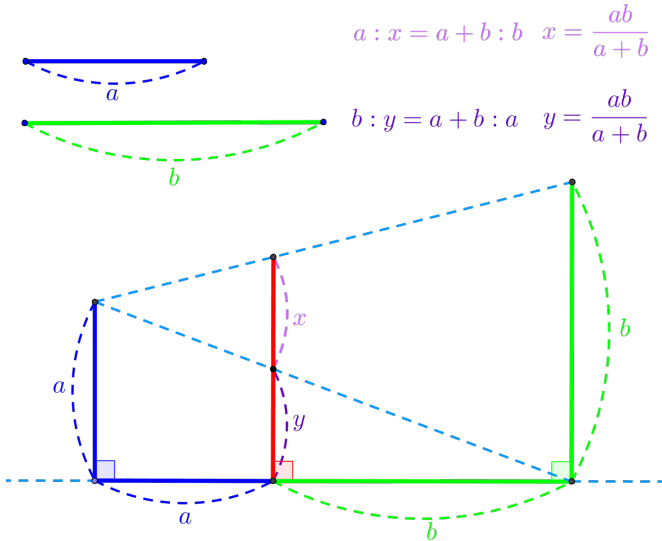
$$a : x = a + b : b \quad x = \frac{ab}{a+b}$$

$$b : y = a + b : a$$



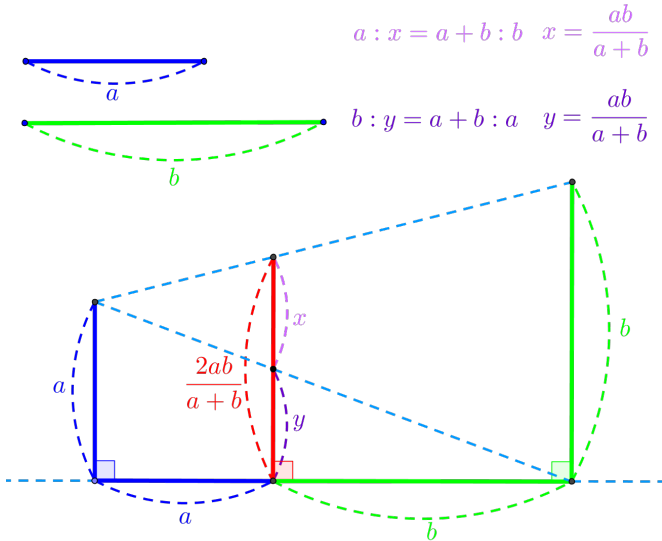
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