Worksheet

09/16/2018

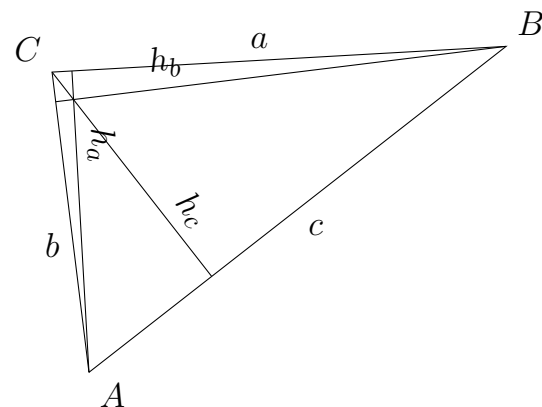Free on dw-math.com

Problem quickname: 4289

<u>1)</u>

Draw a triangle with the specified dimensions and calculate its area. Do this by drawing a height of your choice and measuring the length of this height and the corresponding side..

a) $a = 6$ cm, $b = 4$ cm, $c = 7$ cm Fläche:
$a \cdot h_a/2 = 6 \cdot 4/2 = 12$
$b \cdot h_b/2 = 4 \cdot 6/2 = 12$
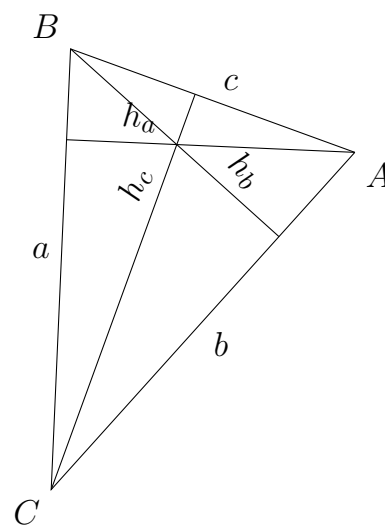$c \cdot h_c/2 = 7 \cdot 3.4/2 = 11.9$

b) $b = 6$ cm, $\alpha = 68$ degrees, $c = 4$ cm Fläche:
$a \cdot h_a/2 = 5.8 \cdot 3.8/2 = 11$
$b \cdot h_b/2 = 6 \cdot 3.7/2 = 11.1$
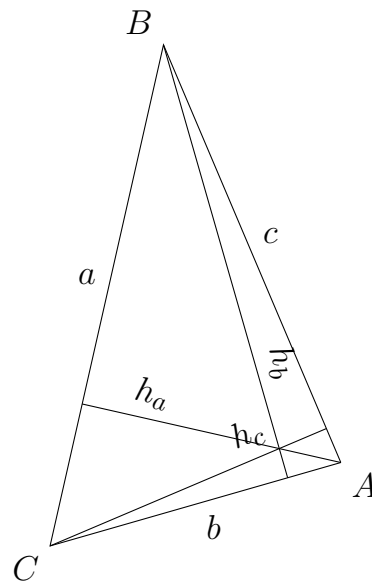$c \cdot h_c/2 = 4 \cdot 5.6/2 = 11.2$

<u>2)</u>

Draw a triangle with the specified dimensions and calculate its area. Do this by drawing a height of your choice and measuring the length of this height and the
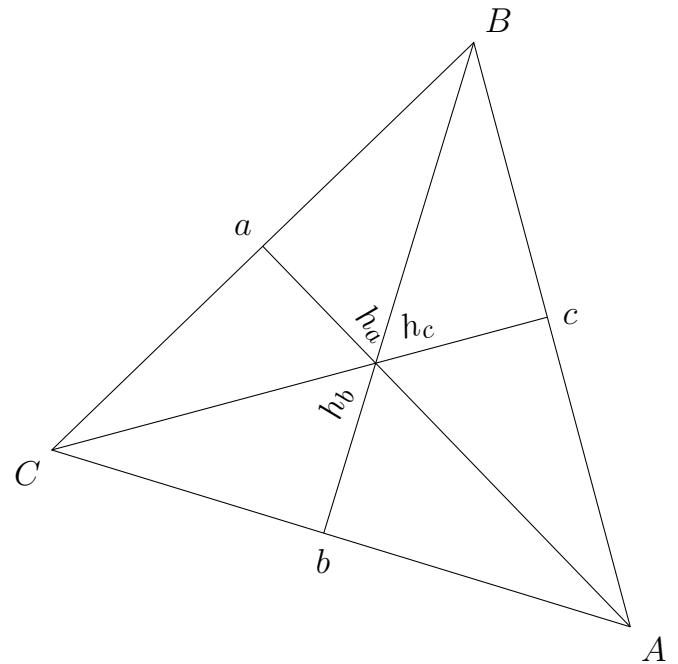
corresponding side..

a) $\beta = 36$ degrees, $a = 6.8$ cm,
$\gamma = 61$ degrees Fläche: $a \cdot h_a/2 =$
$6.8 \cdot 3.5/2 = 11.9$
$b \cdot h_b/2 = 4 \cdot 6/2 = 12$
$c \cdot h_c/2 = 6 \cdot 4/2 = 12$

b) $\beta = 61$ degrees, $a = 7.8$ cm,
$\gamma = 61$ degrees Fläche: $a \cdot h_a/2 =$
$7.8 \cdot 7/2 = 27.3$
$b \cdot h_b/2 = 8 \cdot 6.8/2 = 27.2$
$c \cdot h_c/2 = 8 \cdot 6.8/2 = 27.2$

3)

Quick:
4289

Draw a triangle with the specified dimensions and calculate its area. Do this by
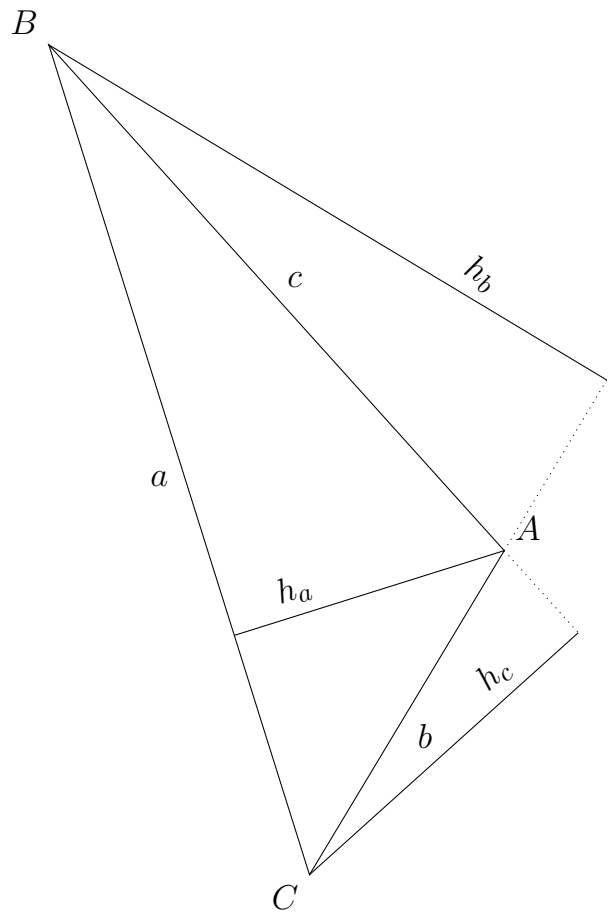drawing a height of your choice and measuring the length of this height and the

corresponding side..

a) $\alpha = 107$ degrees, $c = 9$ cm, $\beta = 25$ degrees
Fläche: $a \cdot h_a/2 = 11.5 \cdot 3.7/2 = 21.3$
$b \cdot h_b/2 = 5 \cdot 8.6/2 = 21.5$
$c \cdot h_c/2 = 9 \cdot 4.8/2 = 21.6$

B

c

h_b

a

A

h_a

h_c

b

C
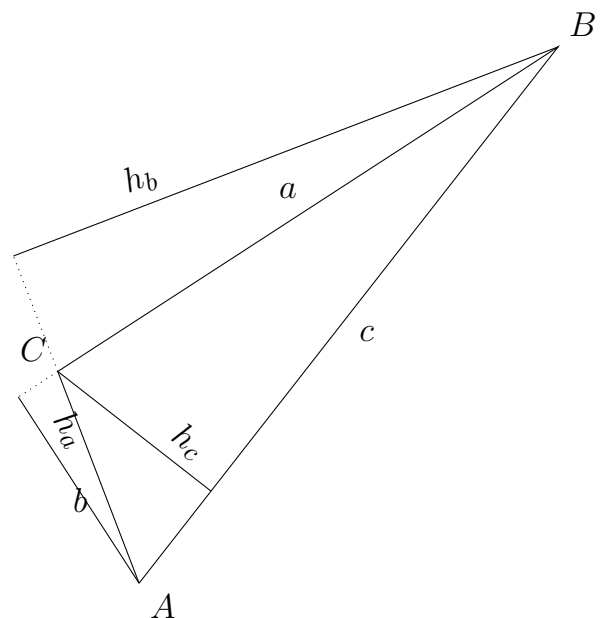
b) $b = 3$ cm, $\alpha = 59$ degrees, $c = 9$ cm Fläche:
$a \cdot h_a/2 = 7.9 \cdot 2.9/2 = 11.5$
$b \cdot h_b/2 = 3 \cdot 7.7/2 = 11.6$
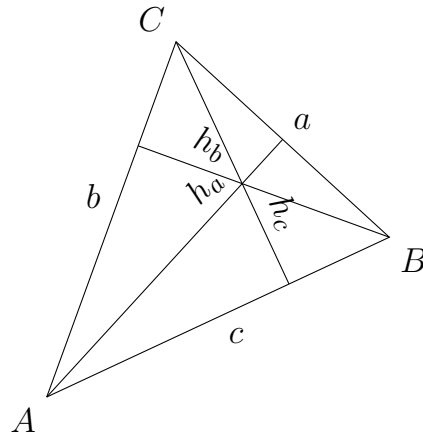$c \cdot h_c/2 = 9 \cdot 2.6/2 = 11.7$

B

h_b

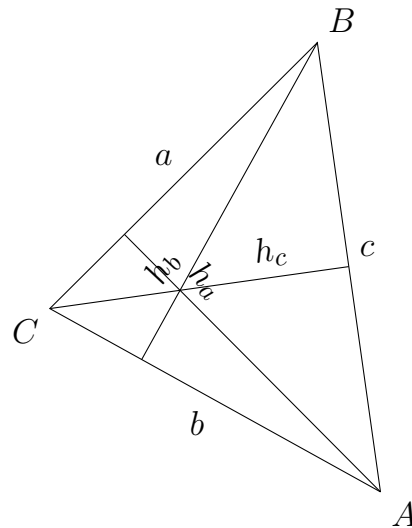a

c

C

h_a

h_c

b

A

<u>4)</u>

Draw a triangle with the specified dimensions and calculate its area. Do this by drawing a height of your choice and measuring the length of this height and the corresponding side..

a) β = 68 degrees, a = 3.8 cm, γ = 68 degrees Fläche: $a \cdot h_a/2$ = $3.8 \cdot 4.6/2 = 8.7$
$b \cdot h_b/2 = 5 \cdot 3.5/2 = 8.8$
$c \cdot h_c/2 = 5 \cdot 3.5/2 = 8.8$

b) $\gamma = 74$ degrees, $b = 5$ cm, $\alpha = 53$ degrees
Fläche: $a \cdot h_a/2 = 5 \cdot 4.8/2 = 12$
$b \cdot h_b/2 = 5 \cdot 4.8/2 = 12$
$c \cdot h_c/2 = 6 \cdot 4/2 = 12$

Good Luck!