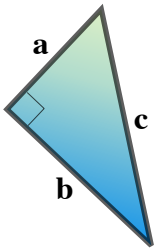
Pythagorean Theorem

Length of the Sides of a Right Triangle

Math Worksheet 7

Name: _____

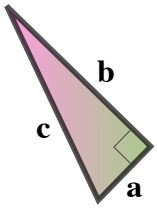
Find the length of the third side of each triangle. Show your solutions.



a = 70.5
b = ?
c = 117.50

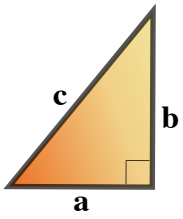
$a^2 + b^2 = c^2$
$70.5^2 + b^2 = 117.50^2$
$4970.25 + b^2 = 13806.25$
$b^2 = 13806.25 - 4970.25$
$b^2 = 8836$
$b = \sqrt{8836}$
$b = 94$

94
Answer



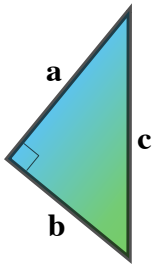
a = 83.7
b = ?
c = 381.3

Answer



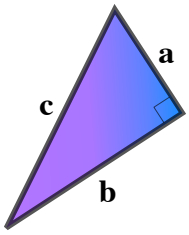
a = ?
b = 158.4
c = 198

Answer



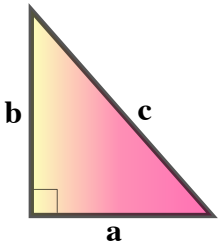
a = 120.96
b = 90.72
c = ?

Answer



a = 67.2
b = 126
c = ?

Answer



a = ?
b = 78.08
c = 94.42

Answer

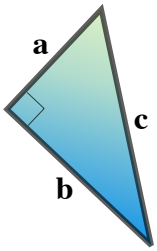
Pythagorean Theorem

Length of the Sides of a Right Triangle

Math Worksheet 7

Name: **ANSWER KEY**

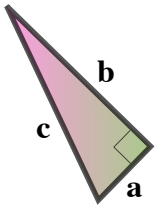
Find the length of the third side of each triangle. Show your solutions.



a = 70.5
b = ?
c = 117.50

$a^2 + b^2 = c^2$
$70.5^2 + b^2 = 117.50^2$
$4970.25 + b^2 = 13806.25$
$b^2 = 13806.25 - 4970.25$
$b^2 = 8836$
$b = \sqrt{8836}$
$b = 94$

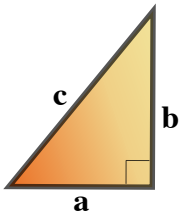
94
Answer



a = 83.7
b = ?
c = 381.3

$a^2 + b^2 = c^2$
$83.7^2 + b^2 = 381.3^2$
$7005.69 + b^2 = 145389.69$
$b^2 = 145389.69 - 7005.69$
$b^2 = 138384$
$b = \sqrt{138384}$
$b = 372$

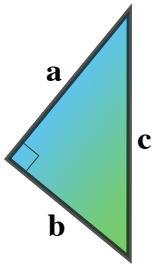
372
Answer



a = ?
b = 158.4
c = 198

$a^2 + b^2 = c^2$
$a^2 + 158.4^2 = 198^2$
$a^2 + 25090.56 = 39204$
$a^2 = 39204 - 25090.56$
$a^2 = 14113.44$
$a = \sqrt{14113.44}$
$a = 118.8$

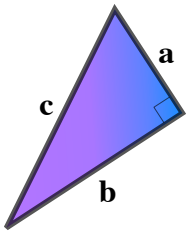
118.8
Answer



a = 120.96
b = 90.72
c = ?

$a^2 + b^2 = c^2$
$120.96^2 + 90.72^2 = c^2$
$14631.32 + 8230.12 = c^2$
$22861.44 = c^2$
$\sqrt{22861.44} = c$
$151.20 = c$

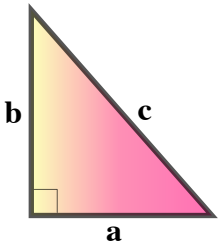
151.20
Answer



a = 67.2
b = 126
c = ?

$a^2 + b^2 = c^2$
$67.2^2 + 126^2 = c^2$
$4515.84 + 15876 = c^2$
$20391.84 = c^2$
$\sqrt{20391.84} = c$
$142.8 = c$

142.8
Answer



a = ?
b = 78.08
c = 94.42

$a^2 + b^2 = c^2$
$a^2 + 78.08^2 = 94.42^2$
$a^2 + 6096.49 = 8915.14$
$a^2 = 8915.14 - 6096.49$
$a^2 = 2818.65$
$a = \sqrt{2818.65}$
$a = 53.09$

53.09
Answer