

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

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My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

Right Triangles: Finding sides and angles (without a calculator)

SOLUTIONS

1)   
 $X = 3$  because 3-4-5 special triangle   
 using pythagorean theorem:  $6^2 + 8^2 = 10^2$    
 $36 + 64 = 100$    
 $Y = 9/1117$    
 $Z = 30$  because 30-72-72 is a 6 (5-12-13) triangle OR using pythagorean theorem:  $72^2 + 72^2 = 10^2$

2)   
 45-45-90 triangle therefore,  $X = 14\sqrt{2}$    
 OR:  $X = \sqrt{196 + 196} = \sqrt{392} = 14\sqrt{2}$    
 30-60-90 triangle  $Z = 5, x = 10$    
 $Y = 5\sqrt{3}$    
 To check answer, try  $5^2 + 5\sqrt{3}^2 = 10^2$    
 pythagorean theorem  $100 = 100$    
 Since the hypotenuse is 2x one of the legs, we can conclude it is a 30-60-90 triangle. Therefore, angle b is 60 degrees. And, side W is  $6/\sqrt{3}$

3)   
 Find the altitude of equilateral  $\triangle abc$    
 An equilateral triangle has angles of 60-60-60. This is helpful, since the altitude produces two 30-60-90 triangles.   
 Area of Trapezoid =  $\frac{1}{2}(b_1 + b_2)h$    
 base  $1 = 10$    
 base  $2 = 4 = 10 + 4 = 14$    
 To find height, we consider the 30-60-90 right triangle  $\rightarrow$  height =  $4\sqrt{3}$    
 Area of Trapezoid =  $\frac{1}{2}(10 + 14)4\sqrt{3} = 56\sqrt{3}$    
 Given the diagonal is 20. Find the area of the above rectangle.   
 We know the diagonal (hypotenuse) and the angle formed by the diagonal,   
 Area of rectangle is length x width =  $10 \times 10\sqrt{3} = 100\sqrt{3}$

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**Right Triangle Trigonometry Problems With Solutions**