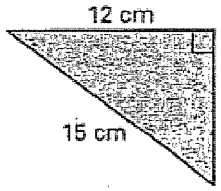
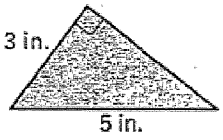
Analytic Geometry **Right Triangle Review**

Find the area of the below triangles: Recall that Area of triangle = _____

16.



17.



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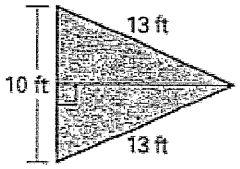
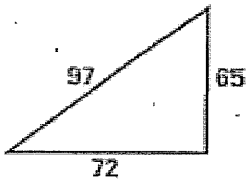
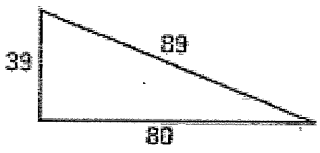


Verifying Right Triangles: Tell whether the triangle is a right triangle

8.



9.



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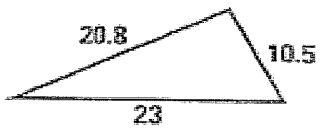
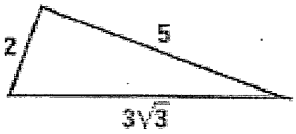
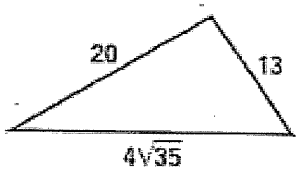


11.

12.

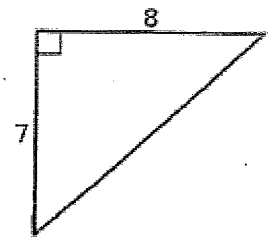


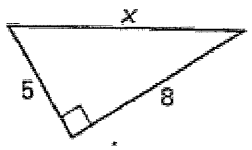
13.

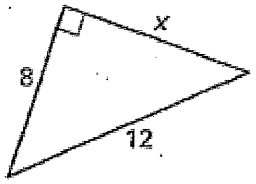


Find the missing side of the right triangles below

1.

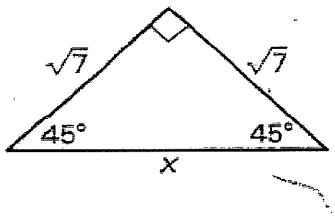




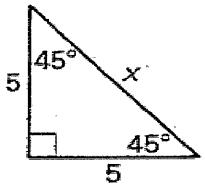


Find the missing lengths of the below triangles:

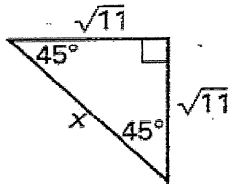
3.



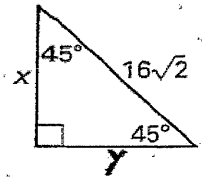
4.



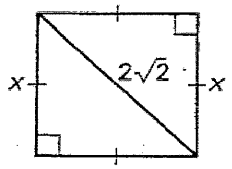
5.



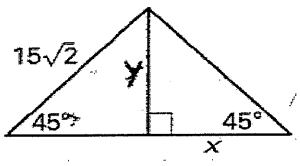
6.



7.

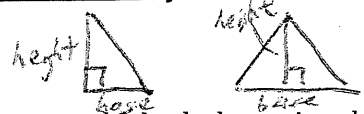


8.



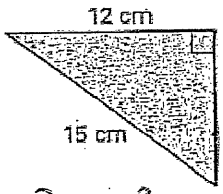
Solution Key

Analytic Geometry **Right Triangle Review** **August 14, 2014 (Thursday)**



Find the area of the below triangles: Recall that Area of triangle = $A = \frac{1}{2}bh$

1)



$x = 9$

$x^2 + 12^2 = 15^2$

$x^2 + 144 = 225$

$x^2 = 81$

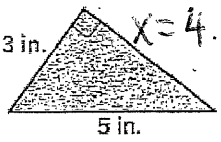
$x = 9$

$A = \frac{1}{2}bh$

$A = \frac{1}{2}(9)(12)$

$A = 54\text{cm}^2$

2)



$x = 4$

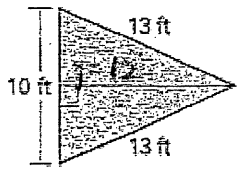
$3^2 + x^2 = 5^2$

$x = 4$

$A = \frac{1}{2}(3)(4)$

$A = 6\text{ in}^2$

3)

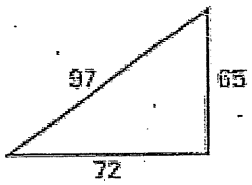


$A = \frac{1}{2}(10)(12)$

$A = 60\text{ ft}^2$

Verifying Right Triangles: Tell whether the triangle is a right triangle

4)

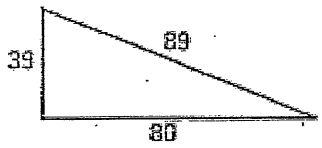


$65^2 + 72^2 = 97^2$ ✓

a) yes

b) pythag triple

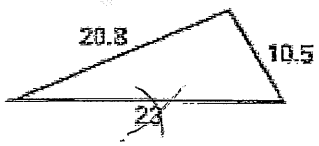
5)



a) yes ✓

b) pythag triple

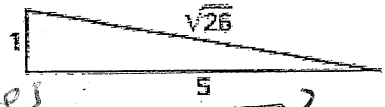
6)



a) No $\neq 23^2$

b) no

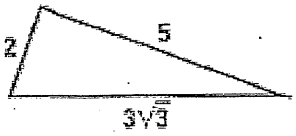
7)



a) yes $1^2 + 5^2 = \sqrt{26}^2$

b) Not a pythag triple

8)

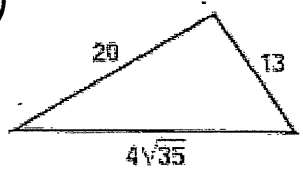


$2^2 + 5^2 \neq 3\sqrt{3}^2$

a) NO

b) no

9)



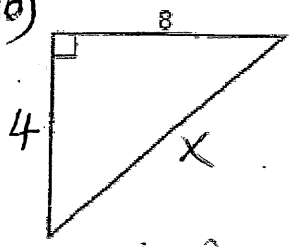
$20^2 + 13^2 \neq (4\sqrt{35})^2$

a) NO

b) no

Find the missing side of the right triangles below

10)



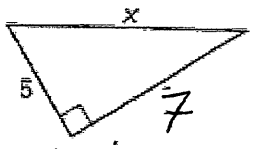
$4^2 + 8^2 = x^2$

$x^2 = 80$

$x = \sqrt{80}$

$x = \sqrt{80}$ $4\sqrt{5}$

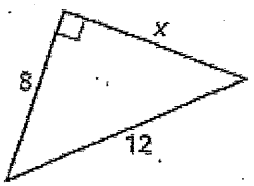
11)



$5^2 + 7^2 = x^2$

$x = \sqrt{74}$

12)



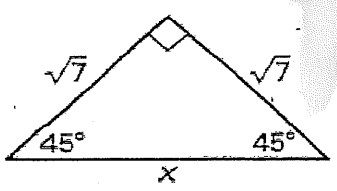
$8^2 + x^2 = 144$

$x^2 = 80$ (64)

$x = 4\sqrt{5}$

Find the missing lengths of the below triangles:

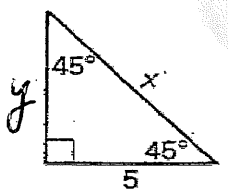
13)



$x = \sqrt{7} \cdot \sqrt{2}$

$x = \sqrt{14}$

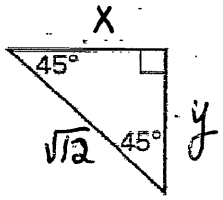
14)



$y = 5$

$x = 5\sqrt{2}$

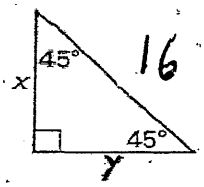
15)



$x = \frac{\sqrt{12}}{\sqrt{2}} = \sqrt{6}$ $x = \sqrt{6}$

$y = \sqrt{6}$

16)

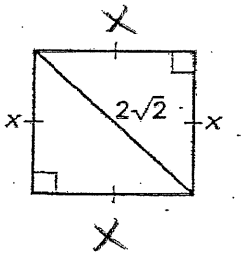


$x = 8\sqrt{2}$

$x = \frac{16}{\sqrt{2}} = 8\sqrt{2}$

$y = 8\sqrt{2}$

17)

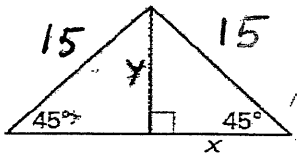


$x = \frac{2\sqrt{2}}{\sqrt{2}} = 2$

$x = 2$

$y = 2$

18)



$y = \frac{15}{\sqrt{2}} = \frac{15\sqrt{2}}{2}$ $y = \frac{15\sqrt{2}}{2}$

$x = \frac{15\sqrt{2}}{2}$