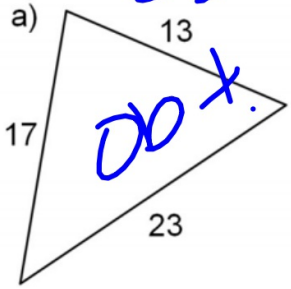
1. Is each triangle Right, Acute, or Obtuse?

$23^2 > 17^2 + 13^2$

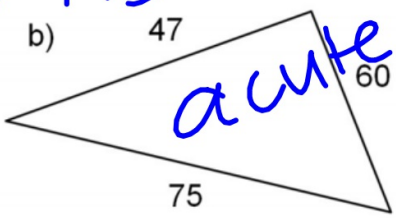
$75^2 < 60^2 + 47^2$

a)



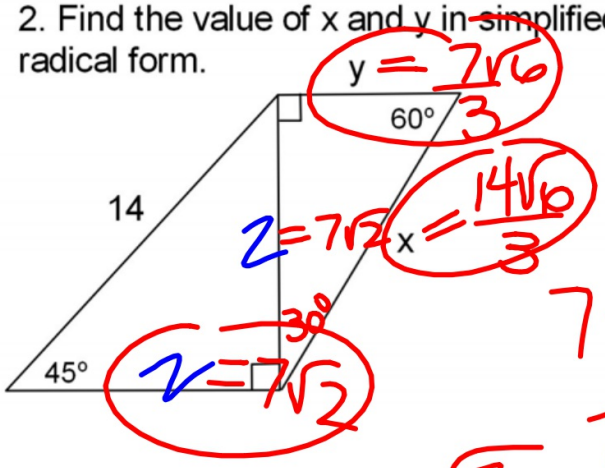
obtuse

b)



acute

2. Find the value of x and y in ~~simplified~~ radical form.



$y = \frac{7\sqrt{6}}{3}$

$x = \frac{14\sqrt{6}}{3}$

$z = 7\sqrt{2}$

$z = 7\sqrt{2}$

$z = \frac{14}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{14\sqrt{2}}{2}$

$= 7\sqrt{2}$

$7\sqrt{2} = \sqrt{3}y$

$\frac{\sqrt{3}}{\sqrt{3}} \cdot \frac{7\sqrt{2}}{\sqrt{3}} = y$

$= \frac{7\sqrt{6}}{3}$

3.

The expression $\dfrac{x^{-2}y^{\frac{1}{2}}}{x^{\frac{1}{3}}y^{-1}}$, where $x > 1$ and $y > 1$, is

equivalent to which of the following?

A) $\dfrac{\sqrt{y}}{\sqrt[3]{x^2}}$

B) $\dfrac{y\sqrt{y}}{\sqrt[3]{x^2}}$

C) $\dfrac{y\sqrt{y}}{x\sqrt{x}}$

D) $\dfrac{y\sqrt{y}}{x^2\sqrt[3]{x}}$

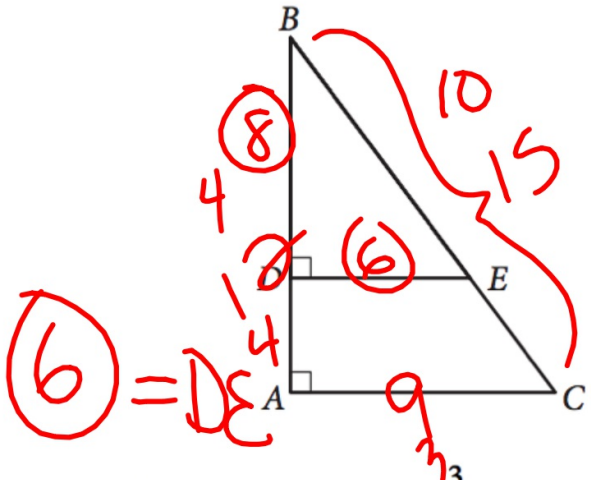
$x^{-2-\frac{1}{3}}\ y^{\frac{1}{2}-(-1)}$

$x^{-\frac{7}{3}}\ y^{\frac{3}{2}}$

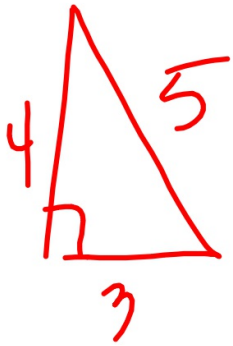
$\dfrac{y^{\frac{3}{2}}}{x^{\frac{7}{3}}} = \dfrac{\sqrt{y^3}}{\sqrt[3]{x^7}}$

$= \dfrac{y\sqrt{y}}{x^2\sqrt[3]{x}}$

4.



In the figure above, $\tan B = \dfrac{3}{4}$. If $BC = 15$ and $DA = 4$, what is the length of $\overline{DE}$?



$5x = 15$

$x = 3$

5.

$y = x^2 - 4x + 4$

$y = 4 - x$

If the ordered pair (x, y) satisfies the system of equations above, what is one possible value of x ?

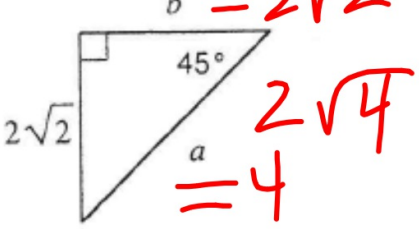
$4 - x = x^2 - 4x + 4$

$0 = x^2 - 3x$

$x(x-3) = 0$

$x = 0$ or 3

1)

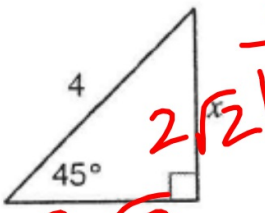


$b = 2\sqrt{2}$

$2\sqrt{4}$

$= 4$

2)



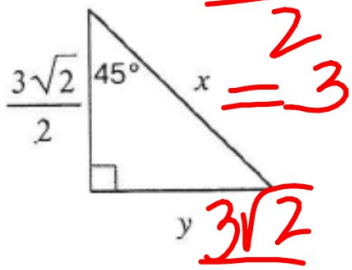
$\frac{4}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$2\sqrt{2}$

$\frac{4\sqrt{2}}{2}$

$2\sqrt{2}$

3)

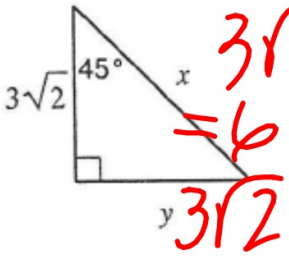


$\frac{3\sqrt{2}}{2} \cdot \sqrt{2}$

$= 3$

$\frac{3\sqrt{2}}{2}$

4)

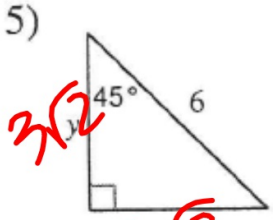


$3\sqrt{2} \cdot \sqrt{2}$

$= 6$

$3\sqrt{2}$

5)

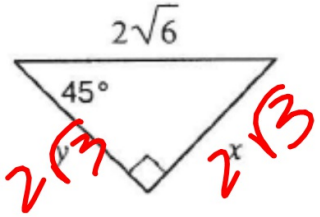


$3\sqrt{2}$ $3\sqrt{2}$

$\frac{6}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

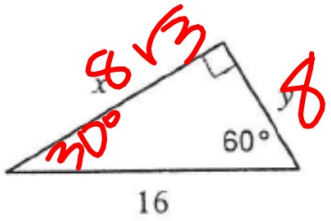
$\frac{6\sqrt{2}}{2}$

6)



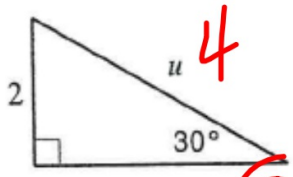
$2\sqrt{3}$ $2\sqrt{3}$

7)



$8\sqrt{3}$ 8

8)



4 $2\sqrt{3}$

IXL #9 - Q.1 & Q.4 due Friday by 4pm!

9. $u = 16$ $v = 8\sqrt{3}$

10. $x = 4\sqrt{15}$ $y = 4\sqrt{5}$

11. $x = 10$ $y = 5$

12. $x = 5\sqrt{3}$, $y = 5$

13. $u = 8$ $y = 8$

14. $x = 8\sqrt{3}$, $y = 4\sqrt{3}$

15. $a = \frac{3\sqrt{3}}{2}$, $b = \frac{3}{2}$

16. $a = 22$, $b = 11$

17. $a = \sqrt{6}$
$b = \sqrt{2}$

18. $m = \frac{7\sqrt{2}}{2}$, $n = \frac{7\sqrt{2}}{2}$