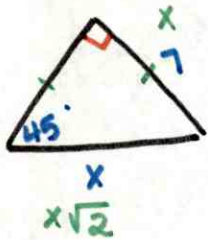


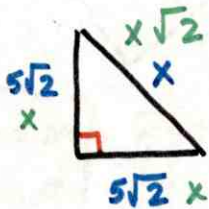
7.4

3)



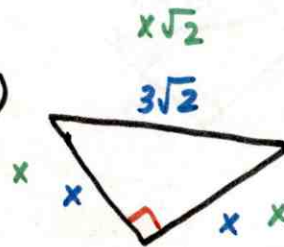
$x = 7\sqrt{2}$

4)



$x = 10$

5)



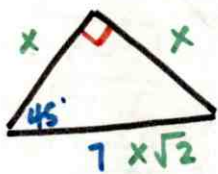
$x = 3$

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

$x = 5\sqrt{2}$   
 $x\sqrt{2} = 5\sqrt{2}(\sqrt{2})$   
 $= 5(2)$   
 $= 10$

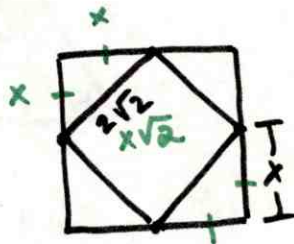
$x = 3$   
 $\frac{x\sqrt{2}}{\sqrt{2}} = \frac{3\sqrt{2}}{\sqrt{2}}$   
 $x = 3$

6) Find AC.



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

7)

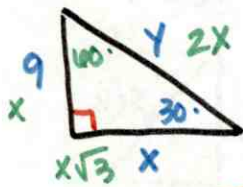


$x = 2$   
 $x\sqrt{2} = 2\sqrt{2}$

$x = 2$

side length =  $2(2)$   
 $= 4$

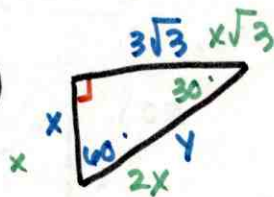
8)



$x = 9$   
 $x\sqrt{3} = 9\sqrt{3}$   
 $2x = 2(9) = 18$

$x = 9\sqrt{3}$   
 $y = 18$

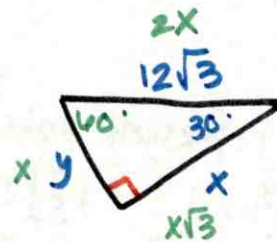
9)



$x = 3$   
 $x\sqrt{3} = 3\sqrt{3}$   
 $2x = 2(3) = 6$

$x = 3$   
 $y = 6$

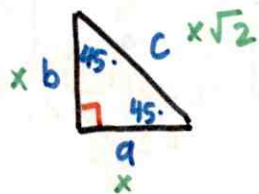
10)



$x = 6\sqrt{3}$   
 $x\sqrt{3} = 6\sqrt{3}(\sqrt{3}) \rightarrow 6(3) = 18$   
 $\frac{2x}{2} = \frac{12\sqrt{3}}{2}$   
 $x = 6\sqrt{3}$

$x = 18$   
 $y = 6\sqrt{3}$

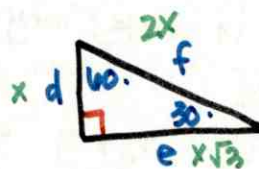
11)



x	a	7	11	$5\sqrt{2}$	6	$\sqrt{5}$
x	b	7	11	$5\sqrt{2}$	6	$\sqrt{5}$
$x\sqrt{2}$	c	$7\sqrt{2}$	$11\sqrt{2}$	10	$6\sqrt{2}$	$\sqrt{10}$

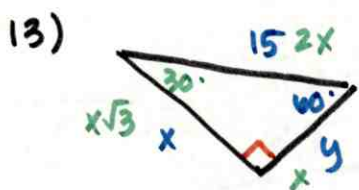
$\frac{x\sqrt{2}}{\sqrt{2}} = \frac{10}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$   
 $x = \frac{10\sqrt{2}}{2}$

12)



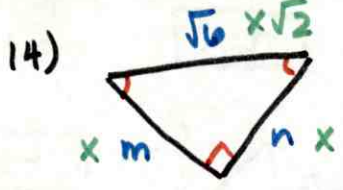
x	d	5	7	8	$9\sqrt{3}$	$4\sqrt{3}$
$x\sqrt{3}$	e	$5\sqrt{3}$	$7\sqrt{3}$	$8\sqrt{3}$	27	12
2x	f	10	14	16	$18\sqrt{3}$	$8\sqrt{3}$

$\frac{2x}{2} = \frac{18\sqrt{3}}{2}$   
 $x = 9\sqrt{3}$   
 $9\sqrt{3}(\sqrt{3}) = 9(3)$   
 $\frac{x\sqrt{3}}{\sqrt{3}} = \frac{12}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$   
 $x = \frac{12\sqrt{3}}{3}$



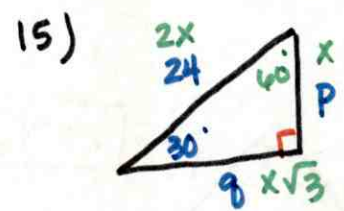
$x = \frac{15}{2}$   
 $x\sqrt{3} = \frac{15\sqrt{3}}{2}$   
 $\frac{2x}{2} = \frac{15}{2}$

$x = \frac{15\sqrt{3}}{2}$   
 $y = 15/2$



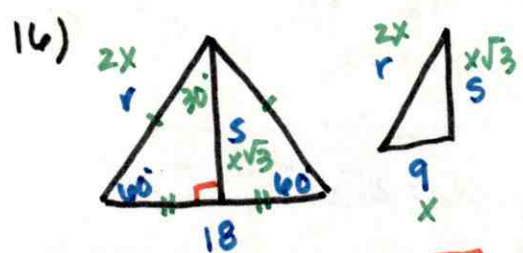
$x = \sqrt{3}$   
 $\frac{x\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{6}}{\sqrt{2}}$

$m = \sqrt{3}$   
 $n = \sqrt{3}$



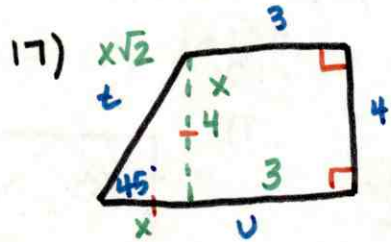
$x = 12$   
 $x\sqrt{3} = 12\sqrt{3}$   
 $\frac{2x}{2} = \frac{24}{2}$

$p = 12$   
 $q = 12\sqrt{3}$

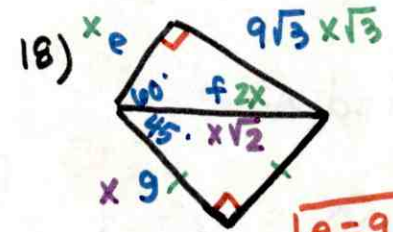


$x = 9$   
 $x\sqrt{3} = 9\sqrt{3}$   
 $2x = 2(9) = 18$

$r = 18$   
 $s = 9\sqrt{3}$



$x = 4$   
 $x\sqrt{2} = 4\sqrt{2}$   
 $u = 3 + 4$   
 $v = 7$   
 $t = 4\sqrt{2}$



$x = 9$   
 $x\sqrt{3} = 9\sqrt{3}$   
 $2x = 18$

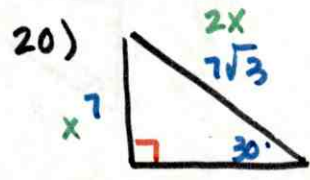
$e = 9, f = 18$   
 $g = 9\sqrt{2}$

$x = 9\sqrt{2}$   
 $\frac{x\sqrt{2}}{\sqrt{2}} = \frac{18}{\sqrt{2}}$

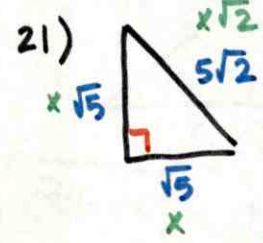
These are both f

19) Do NOT represent 30-60-90

- A)  $\frac{1}{2}, \frac{\sqrt{3}}{2}, 1$   
 $x, x\sqrt{3}, 2x$  ✓
- B)  $\sqrt{2}, \sqrt{6}, 2\sqrt{2}$   
 $x, x\sqrt{3}, 2x$  ✓
- C)  $\frac{5}{2}, \frac{5\sqrt{3}}{2}, 10$   
 $x, x\sqrt{3}, 14x$  ✓
- D)  $3, 3\sqrt{3}, 6$   
 $x, x\sqrt{3}, 2x$  ✓

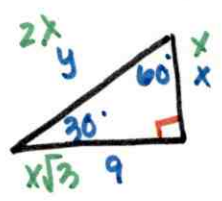


Hypotenuse is 2x and should be 2(7) = 14.  
 $7\sqrt{3}$  is long leg.



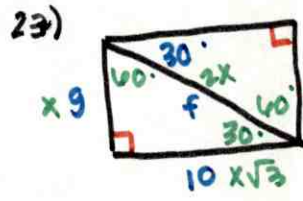
Hypotenuse is  $x\sqrt{2}$  and should be  $\sqrt{5}(\sqrt{2}) = \sqrt{10}$   
 if x was 5 then it would be  $5\sqrt{2}$ .

22) Instead of dividing by  $\sqrt{3}$ , she multiplied each side by  $\sqrt{3}$ . Does it work? why/whynot?



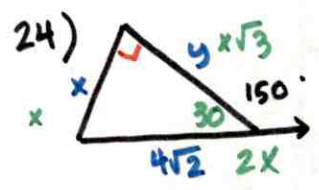
$x\sqrt{3} = 3\sqrt{3}$   
 $x\sqrt{3}(\sqrt{3}) = 9 \rightarrow 3x = 9$   
 $x = 3$   
 $2x\sqrt{3} = 2(3)\sqrt{3} = 6\sqrt{3}$

yes, after you multiply you would then divide.



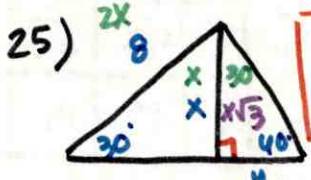
$x = \frac{10\sqrt{3}}{3}$   
 $x\sqrt{3} = 10$   
 $2x = 2(\frac{10\sqrt{3}}{3}) = \frac{20\sqrt{3}}{3}$

$g = \frac{10\sqrt{3}}{3}$   
 $f = \frac{20\sqrt{3}}{3}$



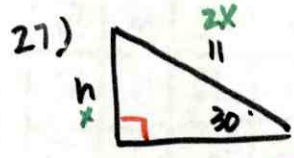
$x = 2\sqrt{2}$   
 $y = 2\sqrt{6}$

$x = 2\sqrt{2}$   
 $x\sqrt{3} = 2\sqrt{2}(\sqrt{3}) = 2\sqrt{6}$   
 $2x = 4\sqrt{2}$



$x = 4$   
 $y = \frac{4\sqrt{3}}{3}$

$x = 4$   
 $2x = 8$   
 $\bar{x} = \frac{4\sqrt{3}}{3}$   
 $x\sqrt{3} = 4$

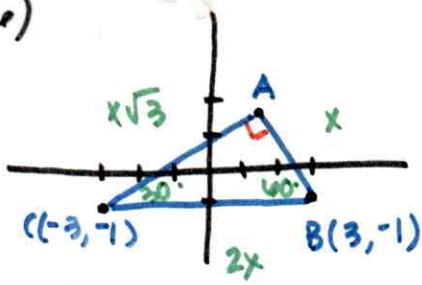


$h = 5.5 \text{ ft}$

$x = 5.5$   
 $2x = 11$

#24 ↓

26)

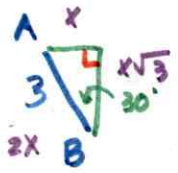


$$BC = 6$$

$$x = 3$$

$$x\sqrt{3} = 3\sqrt{3}$$

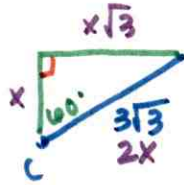
$$2x = 6$$



$$x = 1.5$$

$$x\sqrt{3} = 1.5\sqrt{3}$$

$$2x = 3$$



$$x = 1.5\sqrt{3}$$

$$x\sqrt{3} = 4.5$$

$$2x = 3\sqrt{3}$$

x-value

$$-3 + 4.5$$

$$= 1.5$$

y-value

$$-1 + 1.5\sqrt{3}$$

$$= 1.59$$

$$\text{or } 1.6$$

$$\boxed{A(1.5, 1.6)}$$