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$\tan 20^\circ = \frac{30}{b}$
 $b = \frac{30}{\tan 20^\circ}$
 $\tan 50^\circ = \frac{h}{\frac{30}{\tan 20^\circ}}$
 $\frac{30}{\tan 20^\circ} \cdot \tan 50^\circ = h$

$1^2 + b^2 = 2^2$
 $1 + b^2 = 4$
 $b^2 = 3$
 $b = \sqrt{3}$

$\sin 30^\circ = \frac{1}{2}$
 $\cos 30^\circ = \frac{\sqrt{3}}{2}$
 $\tan 30^\circ = \frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3}$

$\sin 60^\circ = \frac{\sqrt{3}}{2}$
 $\cos 60^\circ = \frac{1}{2}$
 $\tan 60^\circ = \frac{\sqrt{3}}{1}$

$1^2 + 1^2 = c^2$
 $2 = c^2$
 $\sqrt{2} = c$

$\sin 45^\circ = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$
 $\cos 45^\circ = \frac{1}{\sqrt{2}}$
 $\tan 45^\circ = 1$

1.

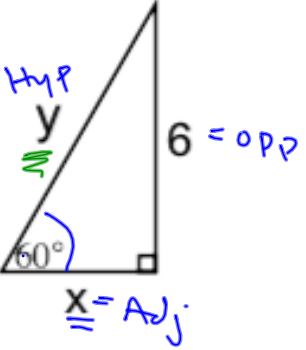
2.

3.

$\tan 60 = \frac{2\sqrt{3}}{x}$
 $x = \frac{2\sqrt{3}}{\tan 60}$
 $x = \frac{2\sqrt{3}}{\sqrt{3}} = 2$

$\sin 60 = \frac{2\sqrt{3}}{y}$
 $\frac{\sqrt{3}}{2} = \frac{2\sqrt{3}}{y}$
 $y = 2\sqrt{3}$
 $y = 2\sqrt{3}$
 $y = 4$

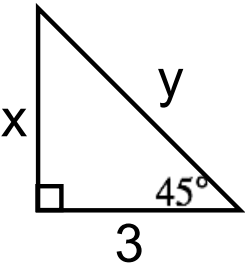
3.



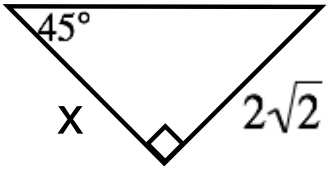
$\tan 60 = \frac{6}{x}$
 $\sqrt{3} = \frac{6}{x}$
 $x = \frac{6}{\sqrt{3}}$
 $x = \frac{6\sqrt{3}}{3}$
 $x = 2\sqrt{3}$

$\sin 60 = \frac{6}{y}$
 $\frac{\sqrt{3}}{2} = \frac{6}{y}$
 $\frac{\sqrt{3}}{2} y = 6$
 $y = 6 \cdot \frac{2}{\sqrt{3}}$
 $y = \frac{12}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$
 $y = 4\sqrt{3}$

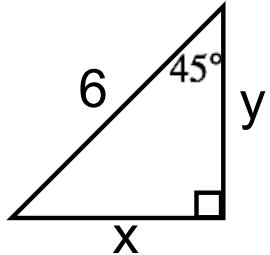
1.

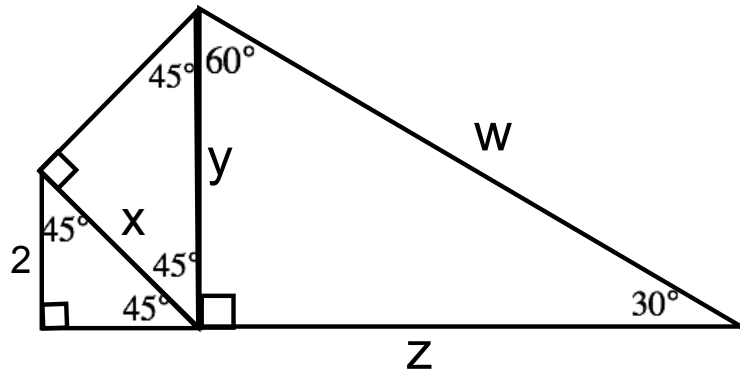


2.



3.





HOMWORK:

P708 #45, 47, 53, 55, 58, 59,
65-68