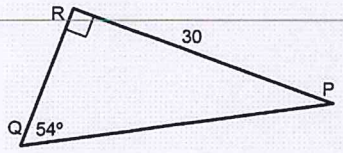
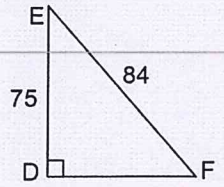
Bellwork Alg 2B Friday, February 2, 2018

Solve each right triangle (this means to find all the missing parts). Round only when you have to. Round to the nearest hundredth.

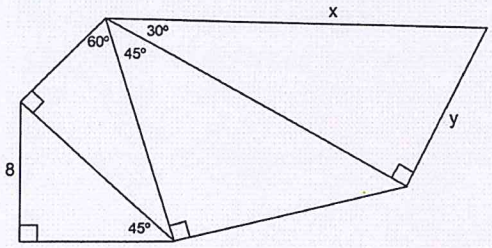
1.



2.



3. Find the exact value of x and y.

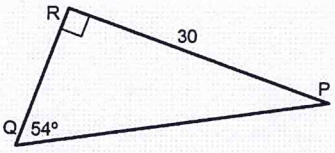


4. You are standing at the edge of a sheer 80 foot high cliff overlooking the ocean. You see a ship in the distance with an angle of depression of $23°$. Your eyes are 5.5 ft above the ground. How far away from the cliff is the ship? Round to the nearest tenth of a foot.

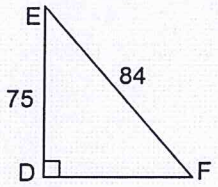
Bellwork Alg 2B Friday, February 2, 2018

Solve each right triangle (this means to find all the missing parts). Round only when you have to. Round to the nearest hundredth.

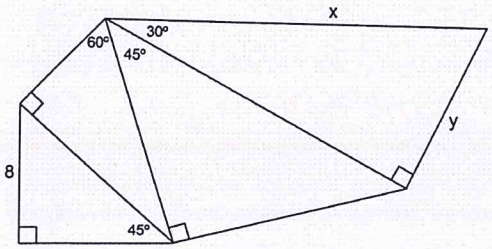
1.



2.



3. Find the exact value of x and y.



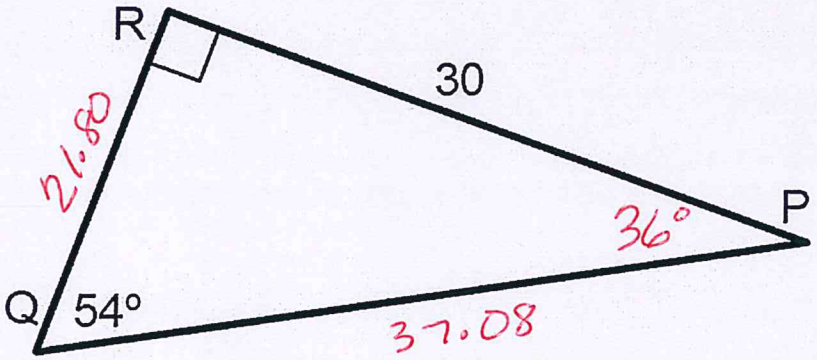
4. You are standing at the edge of a sheer 80 foot high cliff overlooking the ocean. You see a ship in the distance with an angle of depression of $23°$. Your eyes are 5.5 ft above the ground. How far away from the cliff is the ship? Round to the nearest tenth of a foot.

Bellwork Alg 2B Friday, February 2, 2018

Answers

Solve each right triangle (this means to find all the missing parts). Round only when you have to. Round to the nearest hundredth.

1.



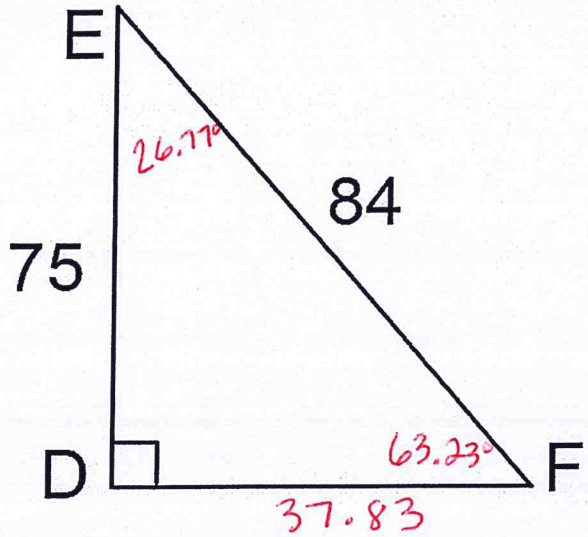
QR

$\frac{\tan 54^\circ}{1} = \frac{30}{QR}$

QP

$\frac{\sin 54^\circ}{1} = \frac{30}{QP}$

2



DF

$84^2 = 75^2 + x^2$

$x^2 = 84^2 - 75^2$

$x = \sqrt{84^2 - 75^2}$

∠E

$\cos E = \frac{75}{84}$

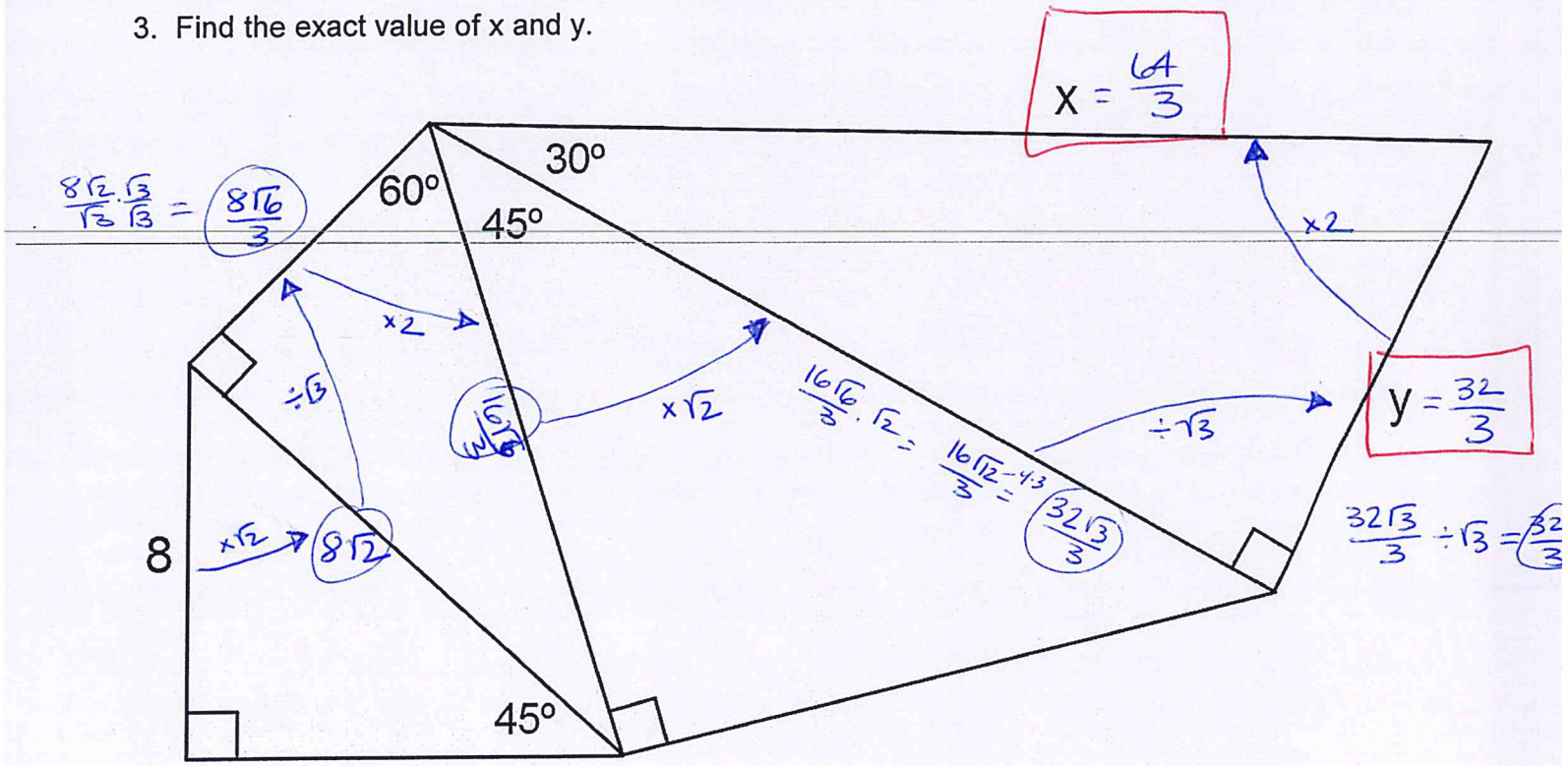
$\angle E = \cos^{-1}\left(\frac{75}{84}\right)$

∠F

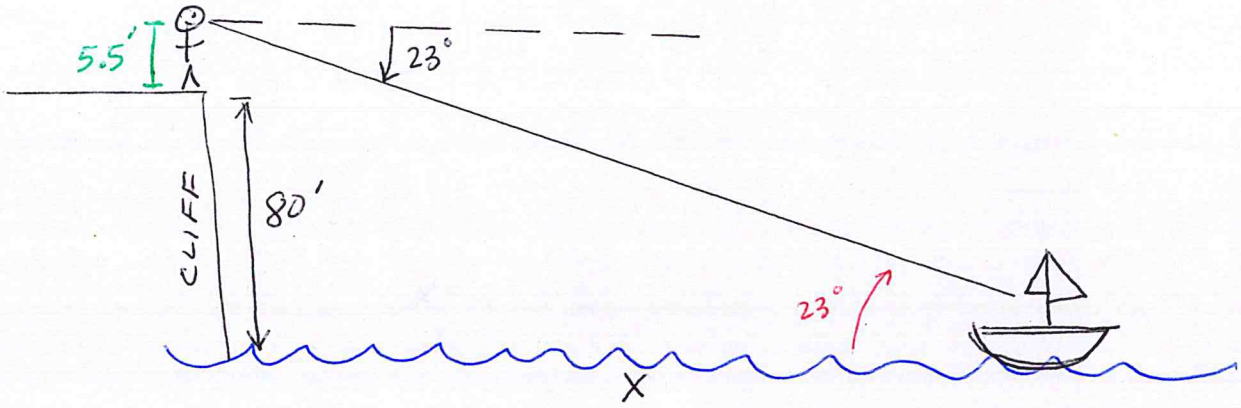
$\sin F = 75/84$

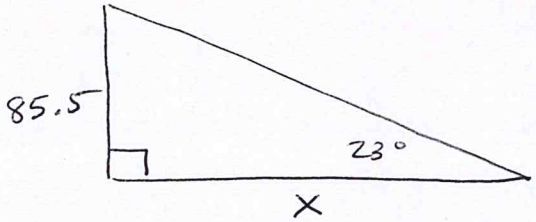
$\angle F = \sin^{-1}(75/84)$

3. Find the exact value of x and y.



4. You are standing at the edge of a sheer 80 foot high cliff overlooking the ocean. You see a ship in the distance with an angle of depression of 23°. Your eyes are 5.5 ft above the ground. How far away from the cliff is the ship? Round to the nearest tenth of a foot.





$\frac{\tan 23°}{1} = \frac{85.5}{x}$

$x = 201.4$ ft