

Leave your answer in simplified (EXACT) form. NO DECIMALS! SHOW WORK for full credit.

Simplify the following completely:

[4 Points Each]

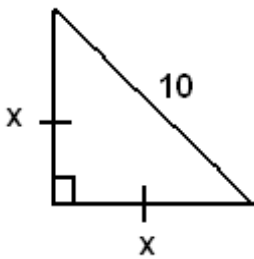
1.) $\frac{24\sqrt{5}}{2\sqrt{6}}$

2.) $12\sqrt{20} - 3\sqrt{125}$

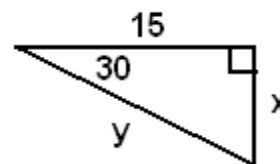
3.) $(4\sqrt{11})^2$

Solve for the variable in each of the following (show your work as discussed in class):

4.) [3 Points]



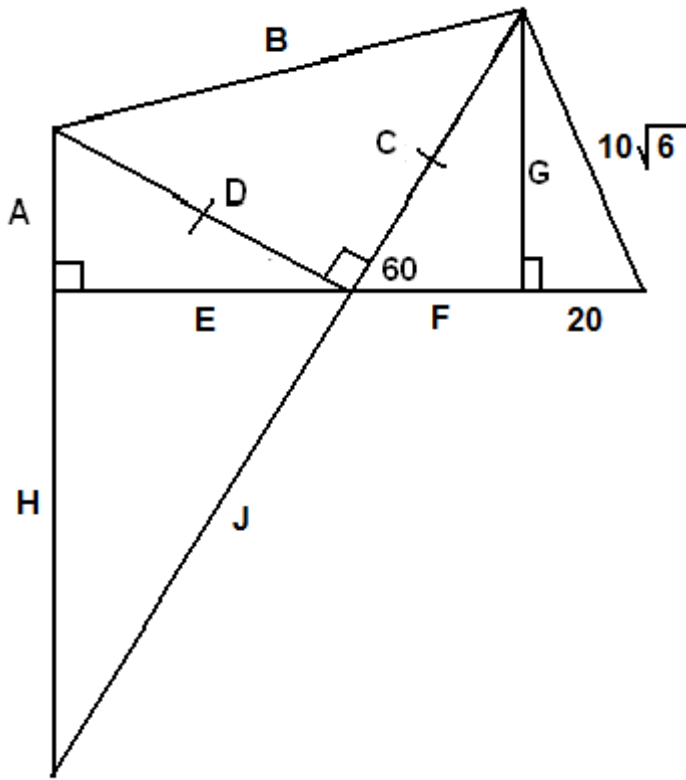
5.) [6 Points]



6.) Solve for the variables. Write your answer in EXACT simplified form.
 Show your work as discussed in class.

[20 Points]

(NO DECIMALS)



A = _____

B = _____

C = _____

D = _____

E = _____

F = _____

G = _____

H = _____

J = _____

FOR THE REMAINDER OF THE QUIZ, DECIMALS ARE ACCEPTABLE!!

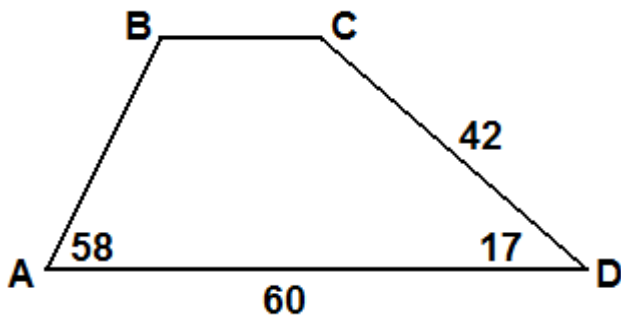
Show your work as we discussed in class.

7.) Trapezoid

AB = _____

[12 Points]

BC = _____



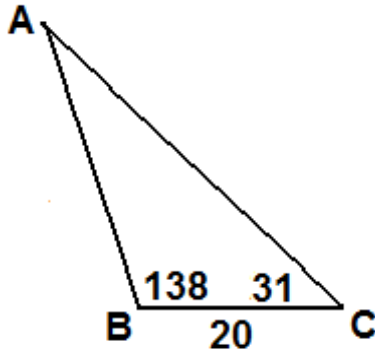
8.) Ralph is flying a kite. He is holding the 140 foot long rope a height of 3 feet off the ground. The rope, pulled tight, forms a 52 degree angle of elevation. How high in the air is the kite?

[5 Points]

[You must provide a picture.]

9.)

[12 Points]



AB = _____

AC = _____

BONUS

[3 Points]

Vanessa, a bored engineer, calculates that she is standing at a point on the ground that would form an angle of elevation of 28 degrees to the top of a nearby building. She walks to a point 100 feet further away from the building and determines that the angle of elevation from this location to the top of the building is 20 degrees.

How tall is the building? [**You must provide a picture.**] **Use an additional sheet if attempting.**