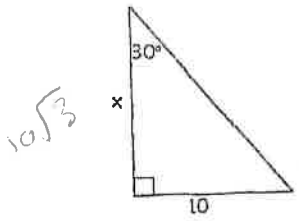
Name:
Date:

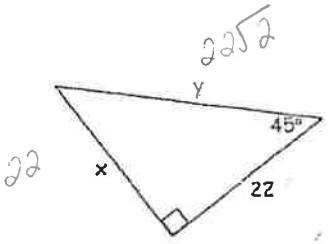
Geometry

Practice Sheet: 30°-60-°90° and 45°-45°-90° Triangles

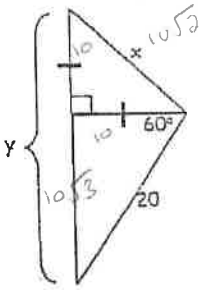
1. Find x.



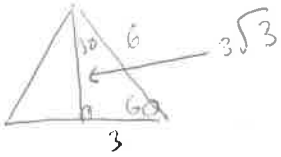
2. Find x and y.



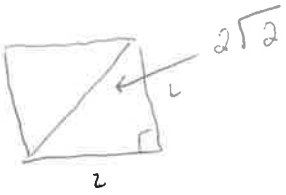
3. Find x and y.



4. Find the altitude of an equilateral triangle with perimeter 18.



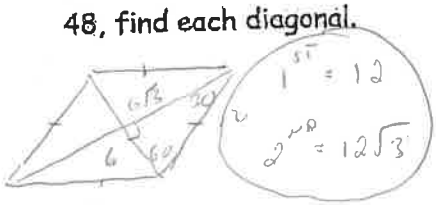
5. Find the diagonal of a square with side length 2.



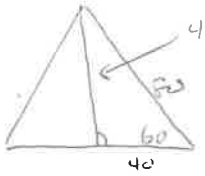
6. Find the legs of an isosceles right triangle with hypotenuse 18.

7. Find the perimeter of a square with a diagonal of 14.

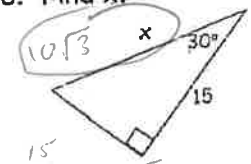
8. One angle of a rhombus is 60°. If the perimeter is 48, find each diagonal.



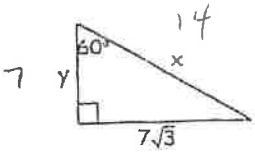
9. Find the perimeter of an equilateral triangle with an altitude of $40\sqrt{3}$.



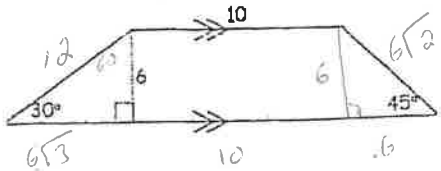
10. Find x.



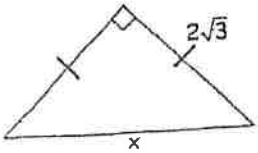
11. Find x and y.



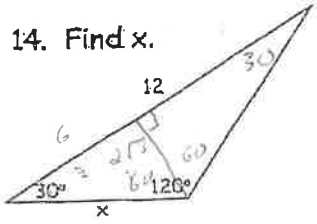
12. Find the perimeter of the trapezoid.



13. Find x.



14. Find x.

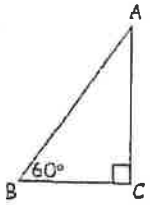


15. Find the area of an equilateral triangle with altitude $4\sqrt{3}$.

16. a. If AB = 15, find BC and AC.

b. If AC = $2\sqrt{3}$, find BC and AB.

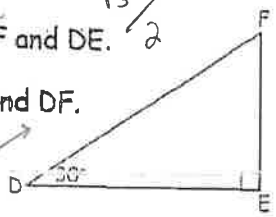
c. If AC = $\frac{17\sqrt{3}}{2}$, find BC and AB.



17. a. If EF = $\sqrt{5}$, find DE and DF.

b. If DF = $\sqrt{17}$, find EF and DE.

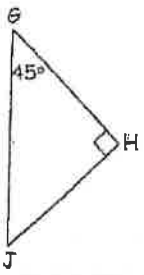
c. If DE = 12, find EF and DF.



18. a. If GH = 1, find HJ and GJ.

b. If HJ = $\frac{9}{2}$, find GH and GJ.

c. If HJ = $\sqrt{5}$, find GH and GJ.



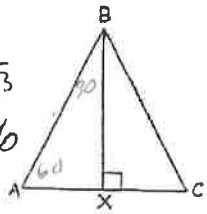
19. Given: $\triangle ABC$ is equilateral.

a. If AX = 3, find AB.

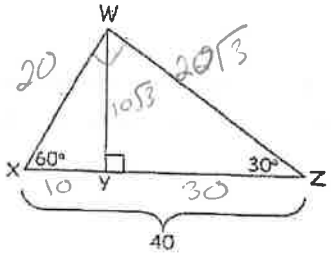
b. If AB = 8, find BX.

c. If AX = $2\sqrt{3}$, find BX.

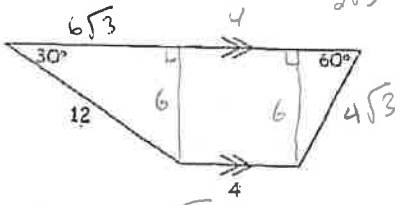
d. If BX = 9, find AX.



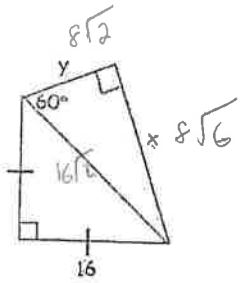
20. Find YZ, XY, and WY.



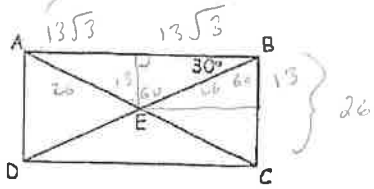
21. Find the perimeter.



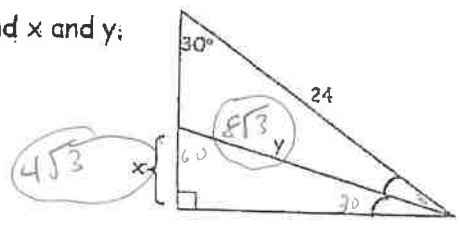
22. Find x and y.



23. ABCD is a rectangle AE = 26. Find the perimeter



24. Find x and y:



25. Find a, b, c, and d.