GT GEOMETRY QUIZ PRACTICE – BERNHARD Name:_____

Period 3rd 4th Date _____

SHOW ALL WORK FOR CREDIT!! You may use your small journals.

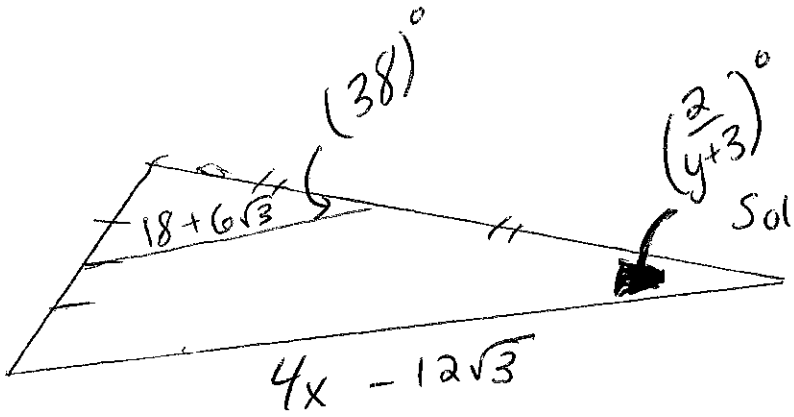
(1) Solve for each variable in the problems using the given information.

a) $\overline{BD}$ is a median of ΔABC. $AD = x^2$ and $CD = 2x + 15$.

b) $\overline{JK}$ is an angle bisector of ΔJLM. $\angle LJM$ is a right angle,
$m\angle LJK = (x + 5y)^\circ, m\angle LJM = (2x - 5y)^\circ$

c) In ΔFGH, $\overline{FJ}, \overline{HI}$, *and* $\overline{GK}$ are centroidss intersecting at point M. $MJ = x^2$ *and* $FM = 32$

(2)



(3) Short answer:

a) Three sides of a triangle are $8, 19,$ *and* $\frac{5x-4}{2}$. Find the range of the values for x.

b) Which special segment of a triangle does not necessarily contain a vertex of the triangle?

c) In ΔPQR, $m\angle P = (5x)^\circ$, $m\angle Q = (7x+12)^\circ$ *and* $m\angle R = (88-2x)^\circ$. Find each angle measure and then list the SIDES in order from LEAST to GREATEST.

4. Place a check mark where appropriate.

	INCENTER	CIRCUMCENTER	CENTROID	ORTHOCENTER
Is the intersection of the perpendicular bisectors of the triangle				
Is the intersection of the medians of the triangle				
Can be located outside the triangle				
Is equidistant from the vertices of the triangle				
Is the center of the inscribed circle of a triangle				
Is located at the midpoint of the hypotenuse of a right triangle				

5