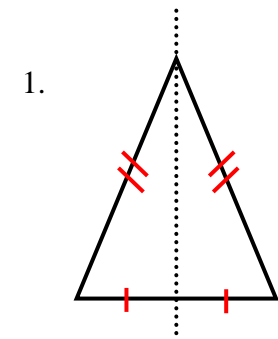**1.7 Special Segments**
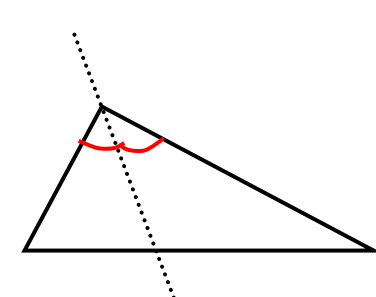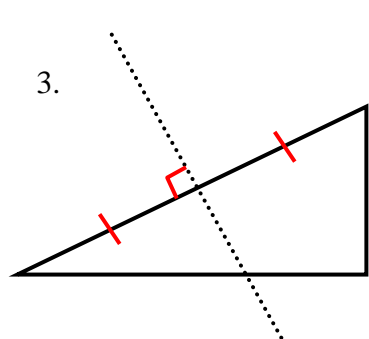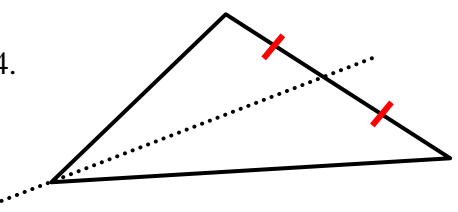**Pre-AP Geometry**

Name _____
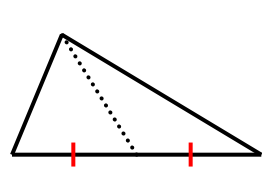Period _____   Date _____

Given the following diagrams and markings, identify each of the following as an angle bisector (AB), a perpendicular bisector (PB), an altitude/height (A), or a median (M). List all that apply.
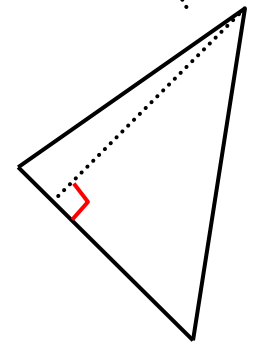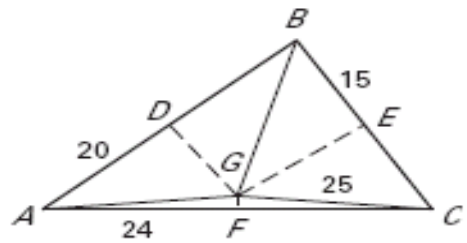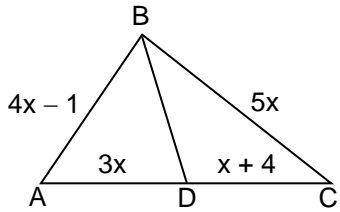
1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

1.

2.

3.

4.

5.

6.

7. In the diagram, the perpendicular bisectors of △ABC meet at point G and are shown dashed. Find the indicated measure.
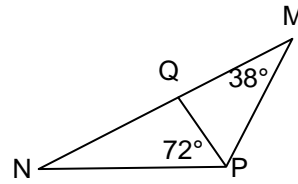
   a) AG =   b) BD =

   c) CF =   d) BG =

8. $\overline{BD}$ is a median of $\triangle$ ABC
   a. Find the value of x
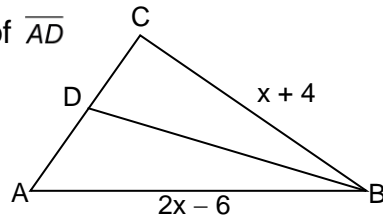   b. Find the length of the sides of $\triangle$ ABC

9. $\overline{PQ}$ is an altitude of $\triangle$ MNP
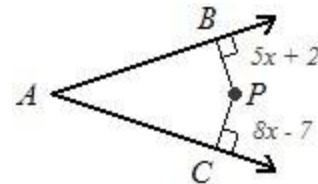   a. Find $m\angle N$ and $m\angle MPQ$

10. $\triangle$ ABC is isosceles with vertex B, $\overline{BD}$ is a median
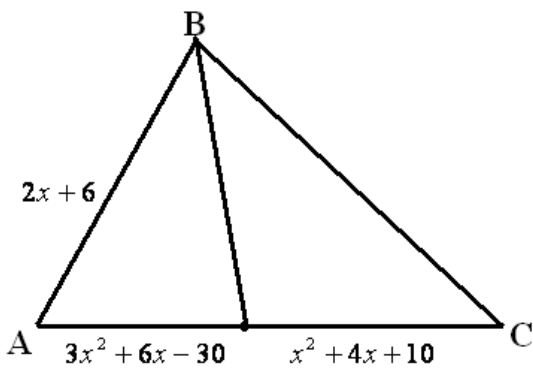   and $\overline{CD} = \dfrac{x}{2}$
    a. Find the length of $\overline{AD}$

11. For what value of x does P lie on the bisector of $\angle A$.

12. Find AB if BD is a median of $\triangle$ABC.

13. Find BC if AD is an altitude of $\triangle$ABC.