Name: _____ Geometry
Date: _____ Review
Class: _____ Graded Homework 25

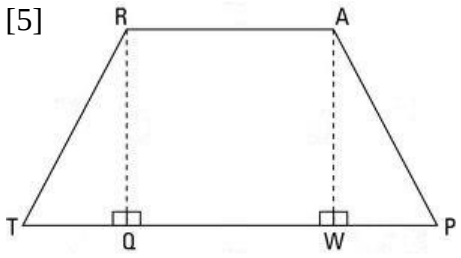
Show all of your work for every problem. The numbers in the brackets are the points that each problem is worth.

1) [3] Find the equation of the bisector of (-2, 2) and (5, -3) that passes through (1, -2).

2) [4] Find the equation of a median from point C in the following triangle
A(-2, 2), B(3, 3), and C(2, -5).

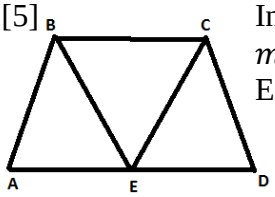
3) [4] The triangle in #2 is the image obtained from the following transformation $R_{90^\circ} \circ T_{-2,4}$. Find the preimage that was used in this transformation.

4) [5]

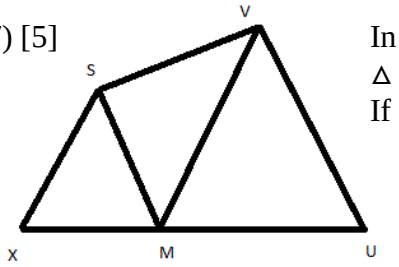


Given: $\overline{TW} \cong \overline{QP}$
$\overline{RQ} \perp \overline{TP}$
$\overline{AW} \perp \overline{TP}$
$\overline{TR} \cong \overline{AP}$
Prove: RAWQ is a rectangle

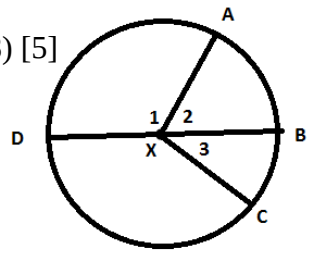
5) [4] Using the segment below, construct an obtuse triangle that has a 60° angle located at vertex A.

6) [5] 

In the following figure, $\overline{BE} \cong \overline{CE}, m < EBC = 10x - 6$, $m < BEC = 7x + 3, m < BEA = 8x + 8$. Is BCDA a trapezoid? Explain your answer.

7) [5] 

In the following figure, $\triangle SXM \sim \triangle VUM$. The area of $\triangle VUM \text{ is } 98ft^2 \text{ and the area of } \triangle SXM \text{ is } 32ft^2$. If XM = 2x + 2, VU = 6x – 5, and UM = 4x + 1, find XS.

8) [5] 

If the area of sector AXC is $12.8\pi m^2 \text{ and the}$ circumference of the circle is $16\pi m$, find m<2 if $\overline{XB}$ bisects <AXC.