Name_____Date_____

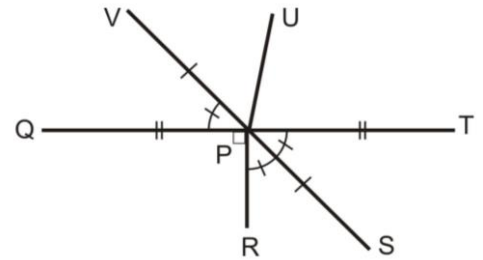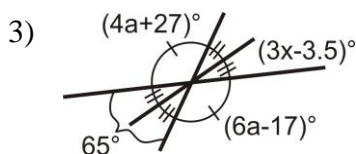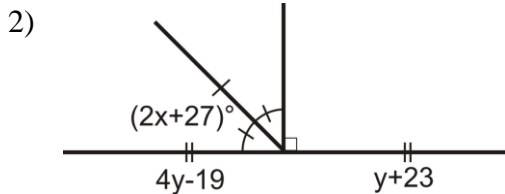# 3.5 – Midpoints and Bisectors

1) Use the picture on the right to answer the questions.

   a. What is the angle bisector of $\angle TPR$?

   b. P is the midpoint of what two segments?

   c. What is $m\angle QPR$?

   d. What is $m\angle TPS$?

   e. How does $\overline{VS}$ relate to $\overline{QT}$?

   f. Is $\overline{PU}$ a bisector? If so, of what?

   g. What is $m\angle QPV$?

Solve the following for the variable. Show all algebraic work.

2)

(2x+27)°

4y-19   y+23

3)

(4a+27)°
(3x-3.5)°
(6a-17)°
65°

Find the midpoint between each pair of points. Show work.

4)   (-2, -3) and (8, -7)   5)   (9, -1) and (-6, -11)

6)   (-4, 10) and (14, 0)   7)   (0, -5) and (-9, 9)

Given the midpoint (M) and either endpoint of AB, find the other endpoint.

8)   A(-1,2) and M(3,6)   9)   B(-10,-7) and M(-2,1)