Section 10.6

Identifying Conic Sections

Identify the conic section that each equation represents.
**** Remember that there are 4 types of conic sections.**

$$x + 4 = \frac{(y-2)^2}{10}$$

$$\frac{(x-1)^2}{9} - \frac{(y-2)^2}{16} = 1$$

$$(x-1)^2 + (y-2)^2 = \frac{81}{16}$$

Example #1:
Given $x^2 + y^2 + 4x - 6y - 3 = 0$.
Write the equation in standard form and identify the conic section.

Example #2:
Find the standard form of $4x^2 - y^2 + 8x + 8y - 16 = 0$ by completing the square. Then identify the conic.

You try:
Write the equation for the conic section in standard form and classify the type.

1) $16x^2 + 9y^2 - 128x + 108y + 436 = 0$

2) $6x^2 + 24x - y - 6 = 0$