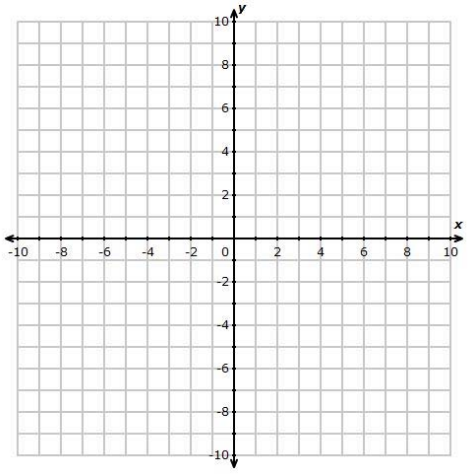
Algebra 2
10.3 & 10.4 Worksheet: Ellipses & Hyperbolas

Name: _____ Hour: _____

Get the following ellipses into standard form, and then sketch their graphs.

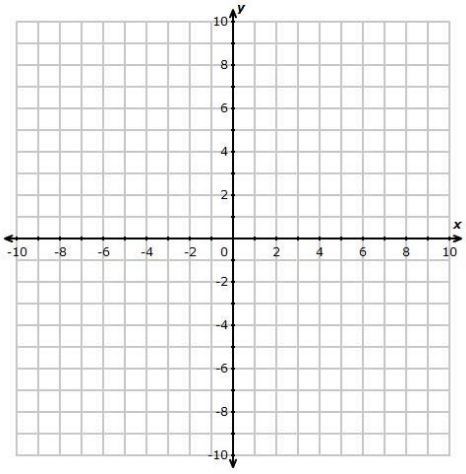
1. $\frac{(x+1)^2}{25} + \frac{y^2}{9} = 1$

(already in standard form)



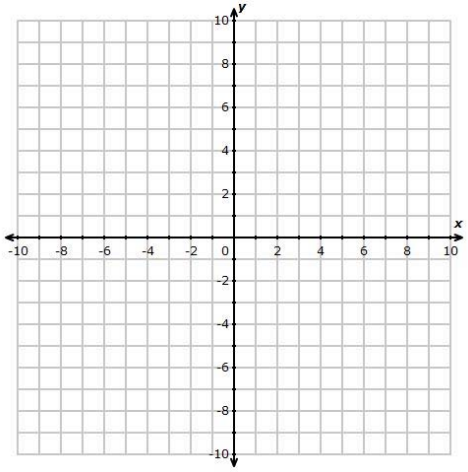
2. $16(x-2)^2 + 9(y+3)^2 = 144$

Standard form:



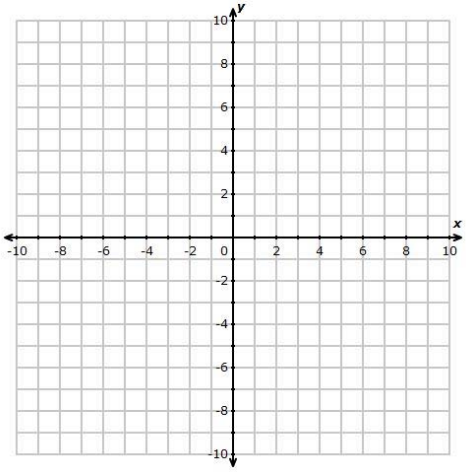
3. $36 - 9(y+2)^2 = x^2$

Standard form:



4. $16x^2 + y^2 = 16$

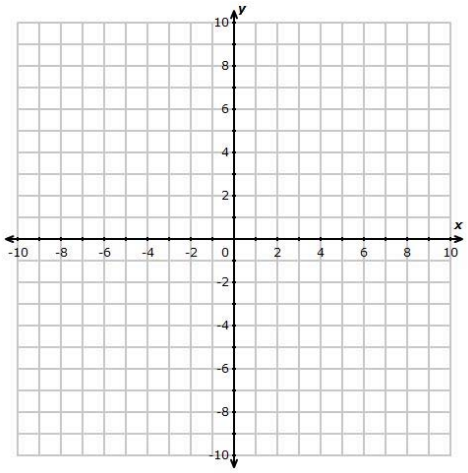
Standard form:



Get the following hyperbolas in standard form, and then sketch their graphs.

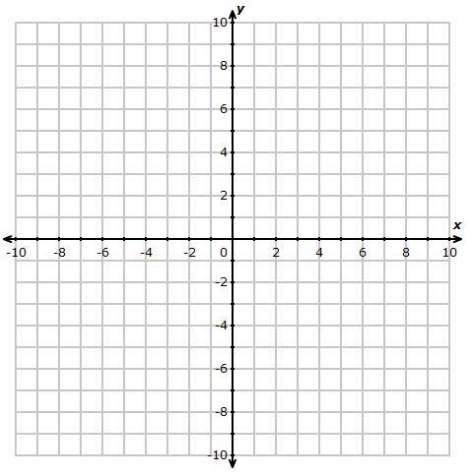
5. $\frac{(x-1)^2}{16} - \frac{(y+2)^2}{4} = 1$

(already in standard form)



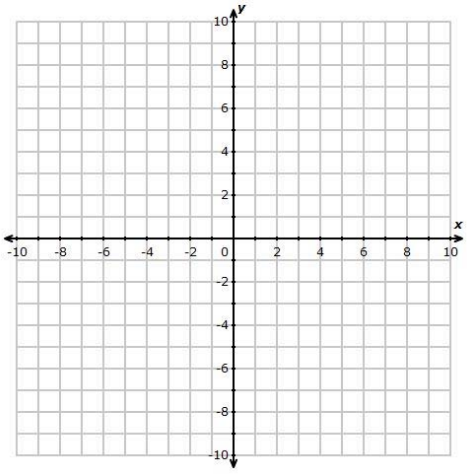
6. $49 + (x+2)^2 = 7(y+2)^2$

Standard form:



7. $y^2 - 2x^2 = 4$

Standard form:



8. $\frac{(x+1)^2}{9} - 4(y-2)^2 = 4$

Standard form: