DIRECTIONS: Give the center and foci of the hyperbola.

1. $\dfrac{(x+7)^2}{9} - \dfrac{(y+1)^2}{16} = 1$

2. $\dfrac{(x-2)^2}{20} - \dfrac{(y-4)^2}{16} = 1$

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

DIRECTIONS: Find an equation of the described hyperbola. You may want to use the graphs on the back to help you find the center.

4. Foci: $(0, -2)\, \& \,(8, -2)$
Difference of focal radii: 2

7. Foci: $(-5, 3)\, \& \,(9, 3)$
Difference of focal radii: 6

5. Foci: $(0, 4)\, \& \,(0, 10)$
Difference of focal radii: 4

8. Foci: $(5, -9)\, \& \,(5, -1)$
Difference of focal radii: 6

6. Foci: $(3, -8)\, \& \,(3, -2)$
Difference of focal radii: 4

9. Foci: $(-4, -4)\, \& \,(4, -4)$
Difference of focal radii: 6