

1.  $(x-5)^2 = y+4$
2.  $\frac{y^2}{9} - (x+4)^2 = 1$
3.  $\left(x - \frac{5}{2}\right)^2 + (y-4)^2 = 2$
4.  $(y+5)^2 = -(x+1)$
5.  $\frac{(x+3)^2}{4} + (y-1)^2 = 1$
6.  $\frac{(y-2)^2}{9} - \frac{x^2}{25} = 1$
7.  $(x+3)^2 + (y-1)^2 = 1$
8.  $\frac{(x-3)^2}{16} + \frac{(y-1)^2}{36} = 1$

### Chapter 9 Application Review

1. Yes, the truck will clear the opening of the archway. The height of the archway five feet to the right of center is 9.68 feet, and the truck is only 9 feet high.
2. (b)  $x^2 = 2694.74y$   
(c) 0, 0 m; 100, 3.71 m; 250, 23.19 m; 400, 59.38 m
3. No – the height of the arch five feet from the center is only 12 feet.
4.  $\frac{x^2}{100} + \frac{y^2}{36} = 1; y \geq 0$
5.  $x^2 = \frac{6125}{17}y; 1.34$  feet
6.  $y^2 = 640x$