1. $x^2 = 16$

2. $2x^2 + 3 = 93$

3. $5(x - 4)^2 = 125$

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

5. $-4(x + 5)^2 = -64$

6. $-\frac{1}{5}x^2 + 4 = -12$

7. $-11y^2 + 4 = -29$

8. $-5(3x + 5)^2 - 50 = -125$

**Falling Objects:**    $h = -16t^2 + h_0$        $h_0$ = starting height, h = ending height

9. The tallest building in the USA is in Chicago, Illinois.  It is 1450 ft tall.  How long would it take a penny to drop from the top of the building to the ground?

10. When an object is dropped from a height of 72 feet, how long does it take the object to hit the ground?

11. For a period of 48 months, the average monthly operating costs for a small business C (in dollars) is approximated by the model $C = 0.55t^2 + 550$, where t is the number of months.  During which month was the average operating cost $1430?