4. (6 points) A certain state has been setting the date for its primary election using a function $P(x)$, where x is the number of years since 1992 and $P(x)$ is the number of days from the beginning of the year when the primary was held. (Count January 1 as one day from the beginning.) The pattern of elections is given in the table:

x	0	4	8	12	16
$P(x)$	96	48	24	12	6

Assuming that P is either linear or exponential, write a formula for $P(x)$ which accurately reflects the data in the table. If this trend continues, when will the primary be held in 2012? Show your work.

5. (8 points) On the axes below, carefully sketch the graph of a continuous function $f(x)$ with the following properties:

- f is an even function (that is, $f(-x) = f(x)$).
- $f(0) = 1$.
- $f'(x) = -2$ on $(-2, 0)$.
- $f'(x) < 0$ for $x > 2$.
- $f''(x) > 0$ for $x < -2$.
- $\lim_{x \to \infty} f(x) = -1$.

Your graph should be as accurate as possible. (You won't be graded on your draftsmanship, though!)