

# Calculus AB

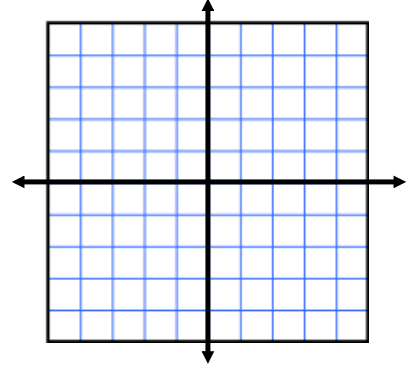
P-1

Graphs and Models

(pg 8)

Sketch the graph of the equation by point plotting. (or not)

7)  $4 - x^2$



In exercises 19-28, find any intercepts.

How do you find  $x$  - intercepts?

How do you find  $y$  - intercepts?

22)  $y^2 = x^3 - 4x$

In exercises 29-40, test for symmetry with respect to each axis and to the origin.

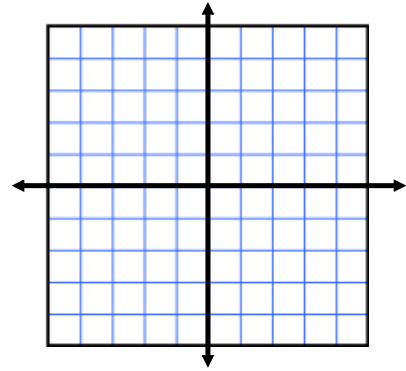
Odd function -

Even function -

34)  $xy^2 = -10$

In exercises 41-58, sketch the graph of the equation. Identify any intercepts and test for symmetry.

$$52) y = \sqrt{25 - x^2}$$



In exercises 63-70, find the points of intersection of the graphs of the equations.

$$66) \begin{aligned} x &= 3 - y^2 \\ y &= x - 1 \end{aligned}$$

\*7th ed\* 77) The table shows the consumer price index (CPI) for selected

Year	1970	1975	1980	1985	1990	1995	2000
CPI	38.8	53.8	82.4	107.6	130.7	152.4	168.7

- Use the regression capabilities of a graphing calculator to find a mathematical model of the form  $y = at^2 + bt + c$  for the data. In the model,  $y$  represents the consumer price index, and  $t$  represents the year, with  $t = 0$  corresponding to 1970
- Graph the model and compare the data with the model.
- Use the model to predict the CPI for the year 2004.