

Practice for Section 1.5

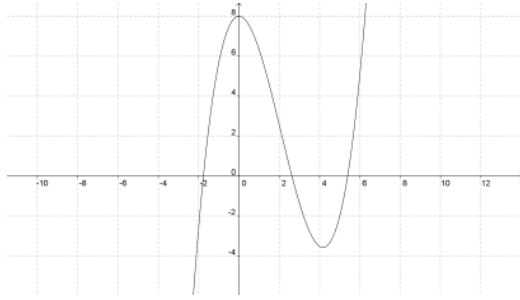
The following problems will help you practice the material you learned today. Once you are finished, you can check your solutions. Once done, you can work on your WeBWORK homework.

Zeros

$g(-2)$

$g(c)=-2$ for what values of c ?

even, odd, neither?



b) Find:

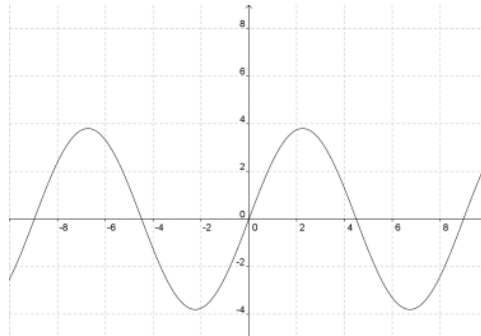
Domain and range

zeros

$h(2)$

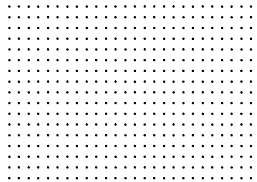
interval of x over which $h(x)$ increases.

For what x does a local maximum occur?

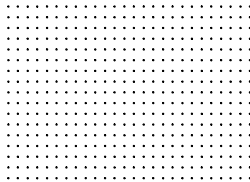


2. For the function $f(x) = x^3 - 4x^2 - 9x + 36$, find zeros and its value at -2 .

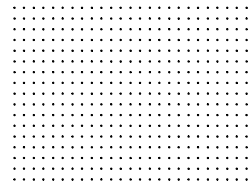
3. Graph the following lines:



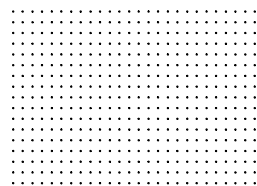
$$3x - 2y = 6$$



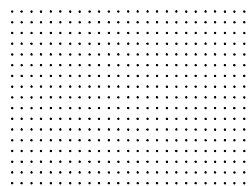
$$y = -2$$



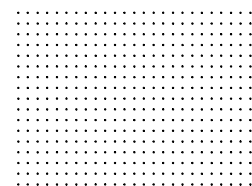
$$x = 4$$



$$y - 2 = 3(x + 1)$$



$$y = -3x$$



$$y = -\frac{2}{3}x + 6$$

4. Graph the following functions:

$$f(x) = |x|$$

$$f(x) = x^2$$

$$f(x) = \frac{1}{x}$$

$$f(x) = x^3$$

$$f(x) = \lceil x \rceil \text{ (greatest integer)}$$

$$f(x) = \begin{cases} \sqrt{x} & x > 0 \\ 2 - x & x \leq 0 \end{cases}$$

5. Draw these transformations of the graph $y = x^2$

$$y = -2(x-1)^2$$

$$y = (x+1)^2 - 3$$

$$y = -0.5x^2 + 2$$

$$y = 3(x+2)^2 - 1$$

6. Write a possible equation for each of these transformations of $y = \sqrt{x}$

