$f(x)$

1.2.2 How can I undo complicated functions?
....

Inverse Functions
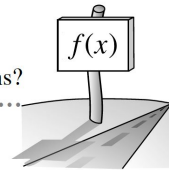
#76 Shawn is a factory manager. She knows that on any given day, n employees can fill $p = 2n^2 - 8$ orders.

a. Graph the given function and analyze this situation. State a domain that makes sense in this context.
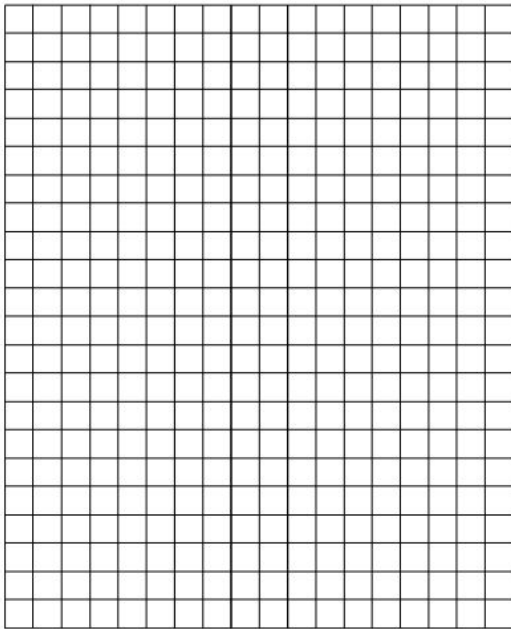
b. How many orders can 10 employees fill in a day?

c. On Monday, 120 orders need to be filled. How many employees are needed on Monday?

d. On Tuesday, 64 orders need to be filled. How many employees are needed on Tuesday?

Domain:

e. Shawn wants to program her computer to take the number of orders that need to be filled and assign the correct number of employees to work. What equation does she need to program into her computer?

f. Graph your equation from part (e) on the same set of axes as the original function. How are your graphs related? How are your equations related?

#78 A table and graph of $y = g(x)$ are shown on the, but a chocolate milk spill makes the equation of g impossible to read.

a/b. How does Rowen plan to complete a table and graph without knowing the equation of the inverse? Discuss this with your team, then complete these two representations.
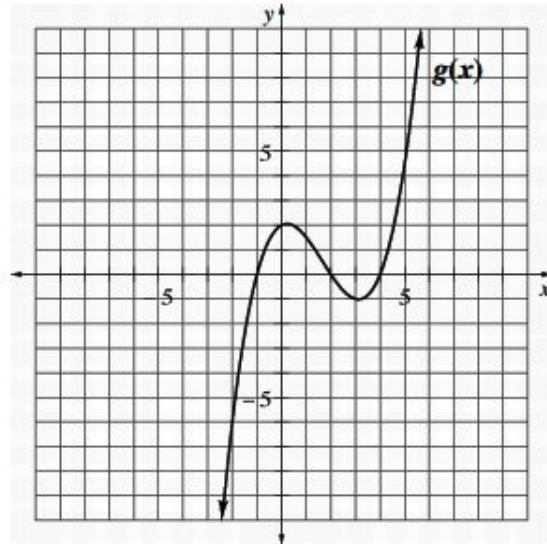
Equations:
$g(x) =$ inverse:

Graphs:

Tables:

x	y
-2	-6
-1	0
0	2
1	1.5
2	0
3	-1
4	0
5	4.5

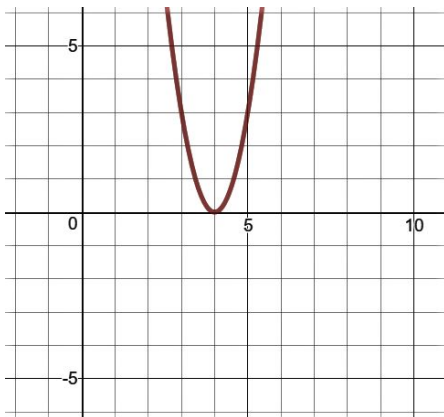| x	y

c. Is g invertible? Can the inverse of g be written as g_{-1}? Explain why or why not.

#80

a. Neatly sketch the graph of its inverse.

$$f(x) = 3(x - 4)^2$$

b. Select a section of the graph of $y = f(x)$ so that this section is as large as possible and the inverse of this section is a function. Darken both the section of $y = f(x)$ you selected and the inverse of this section and fill in the missing information below.

Original Function:	Inverse Function:
Restricted Domain:	Inverse Domain:
Range:	Inverse Range: