

Name: _____

Date: _____

UNIT 1 • FUNCTIONS AND THEIR INVERSES

F–BF.4c, F–IF.9

Lesson 1.2: Finding Inverse Functions in Various Forms

Practice 1.2: Finding Inverses of Functions in Various Forms

A

Use your knowledge of table and graph representations of functions and inverse functions to complete each problem.

1. Use the given table for $f(x)$ to create a graph representing the inverse function $f^{-1}(x)$.

x	-6	-2	1	4	8
$f(x)$	2	4	1	-2	0

2. Use the given table for $f(x)$ to find $f(1)$, $f(5)$, $f^{-1}(1)$, and $f^{-1}(5)$.

x	$f(x)$
1	4
2	1
3	2
4	6
5	3
6	5

3. Use the given table for the inverse function $f^{-1}(x)$ to find $f(9)$, $f(23)$, $f^{-1}(9)$, and $f^{-1}(23)$.

x	$f^{-1}(x)$
4	9
9	14
15	18
17	23
21	27
23	32

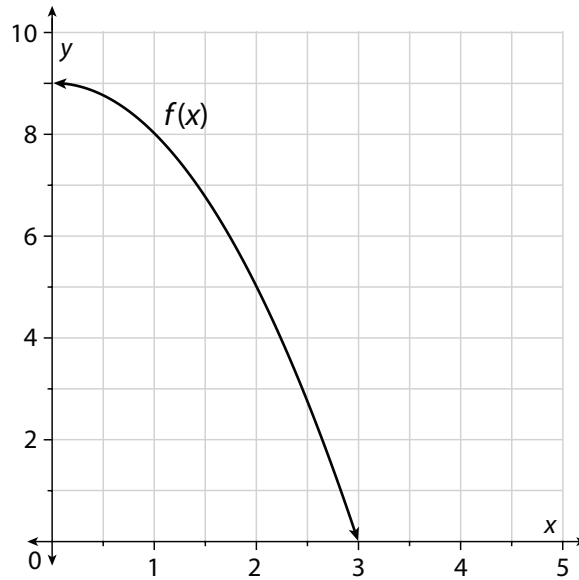
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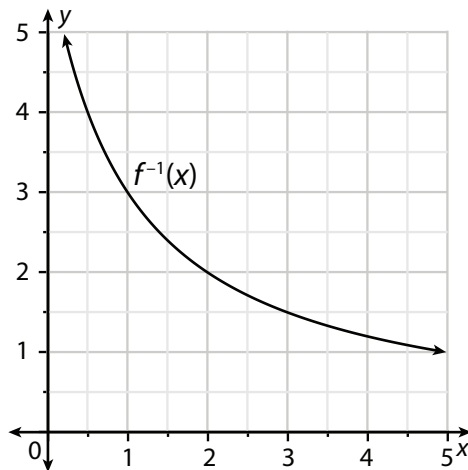
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4. Use the given graph of $f(x)$ to find $f(2)$, $f(3)$, $f^{-1}(8)$, and $f^{-1}(9)$.



5. Use the given graph of the inverse function $f^{-1}(x)$ to find $f(1)$, $f(4)$, $f^{-1}(1)$, and $f^{-1}(3)$.



6. Use the given table for the inverse function $f^{-1}(x)$ to create a new table for the function $f(x)$.

x	1	2	3	6	10	15
$f^{-1}(x)$	-12	-18	-8	-14	-6	-10

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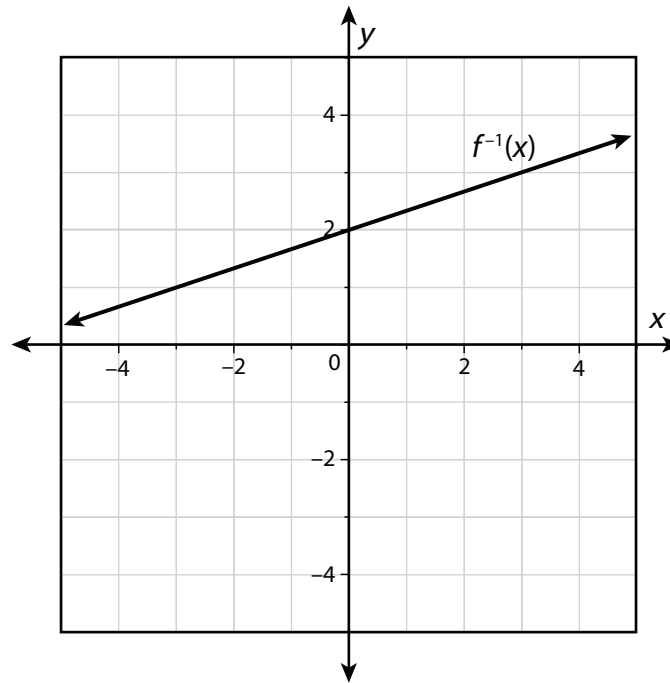
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7. Use the given graph of the inverse function $f^{-1}(x)$ to graph the function $f(x)$.



8. Janiya delivers newspapers, and the amount of money she earns in dollars if she delivers n newspapers is given by the function $f(n)$ in the table. Find and interpret the value of $f^{-1}(100)$.

n	$f(n)$
0	0
50	12.50
100	25
150	37.50
200	50
250	62.50
300	75
350	87.50
400	100
450	112.50
500	125

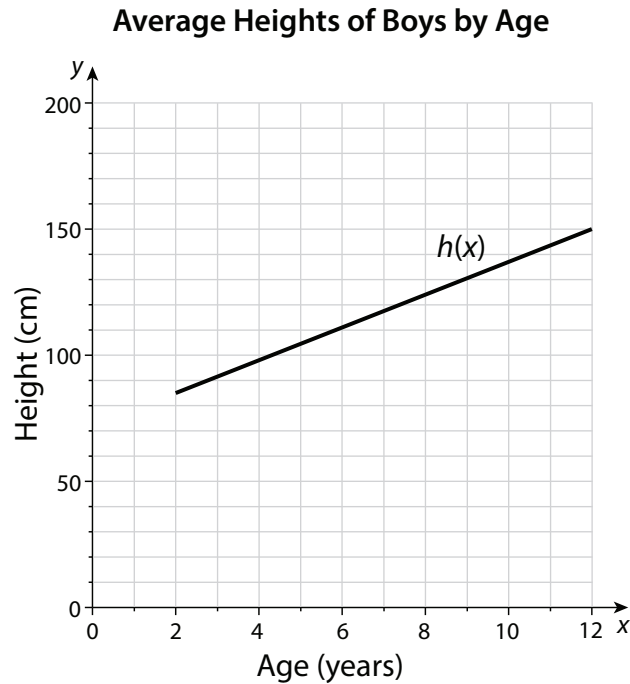
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9. The approximate average height $h(x)$ of boys aged 2–12 is shown in the graph, where x is a boy's age in years and $h(x)$ is measured in centimeters. Find and interpret the value of the inverse function $h^{-1}(124)$.



10. Sebastien hand-crafts circular braided rugs. The graph shows the prices of various sizes of his rugs. A customer ordered 3 identical rugs for a total of \$1,350. Use the graph to determine the radius of each rug in the order.

