4-7 Day 2 Practice & Extend

Find the inverse of each relation. State the domain and range of each.

1.

x	y
–4	–2
–2	–1
0	1
2	0
4	2

2.

x	y
1	8
2	6
3	4
4	2
5	0

Find the inverse of each function.

3. $f(x) = 8x - 5$

4. $f(x) = 6(x + 7)$

5. $f(x) = \frac{3}{4}x + 9$

6. $f(x) = -16 + \frac{2}{5}x$

7. $f(x) = \frac{3x + 5}{4}$

8. $f(x) = \frac{-4x + 1}{5}$

Two functions are inverses of one another if and only if: $f[g(x)] = x$ and $g[f(x)] = x.$

Use composition of functions to determine if each pair of functions are inverses of one another.

Ex. $f(x) = 3x + 9$ *and* $g(x) = \frac{1}{3}x - 3$

1. $f(x) = 2x - 10$ *and* $g(x) = \frac{1}{2}x + 5$

2. $f(x) = -6x$ *and* $g(x) = \frac{1}{6}x$

3. $f(x) = 8x - 10$ *and* $g(x) = \frac{x+10}{8}$