## 4-7 Day 2 Practice & Extend

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

2.

- Relation
- Inverse

DAG
Frelaction
Para

X	ÿ
1	8
2	6
3	4
4	2
5	0

X	Giver	se
8 64	723	
3	14	

Prompers (2, 1, 1, 0, 2) P: (-4, -2,0,2,4) = They switch the switch the X dy terms!

Find the inverse of each function.

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

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

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

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

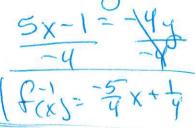
$$X = -16 + \frac{2}{5}y$$

$$5(x+16) = (\frac{2}{5}y)5$$

$$5(x+40 = \frac{1}{5}y)$$

$$4x = 34 + 5$$
 $4x - 5 = 34$ 

$$5(x) = \left(-\frac{4y+1}{5}\right)$$
  
 $5x = -\frac{4y+1}{5}$   
 $5x - 1 = -\frac{4y}{4}$ 



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  $g(x) = \frac{1}{3}x - 3$ 

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

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

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

izes! fix) & 87x) 2 are inverses