${\rm Chapter}~4.4$

Friday, Week 3

Warmup

How many solutions?

1.
$$5n \equiv 1 \pmod{24}$$

2.
$$5n \equiv 3 \pmod{24}$$

3. $9n \equiv 1 \pmod{24}$

$$4. 9n \equiv 3 \pmod{24}$$

5.
$$n^2 \equiv 1 \pmod{19}$$

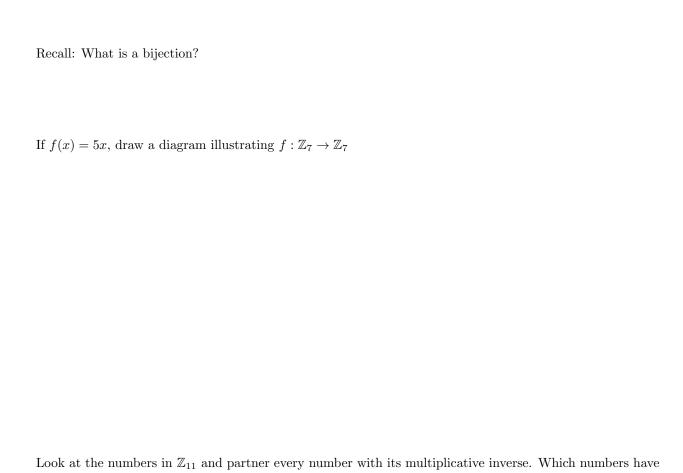
6.
$$n^2 \equiv 2 \pmod{5}$$

7.
$$n^2 \equiv 1 \pmod{8}$$

How many solutions?

1.
$$x \equiv 2 \pmod{5}$$
 and $x \equiv 9 \pmod{10}$

2.
$$x \equiv 2 \pmod{5}$$
 and $x \equiv 9 \pmod{11}$



no partners? Which numbers have multiple partners?