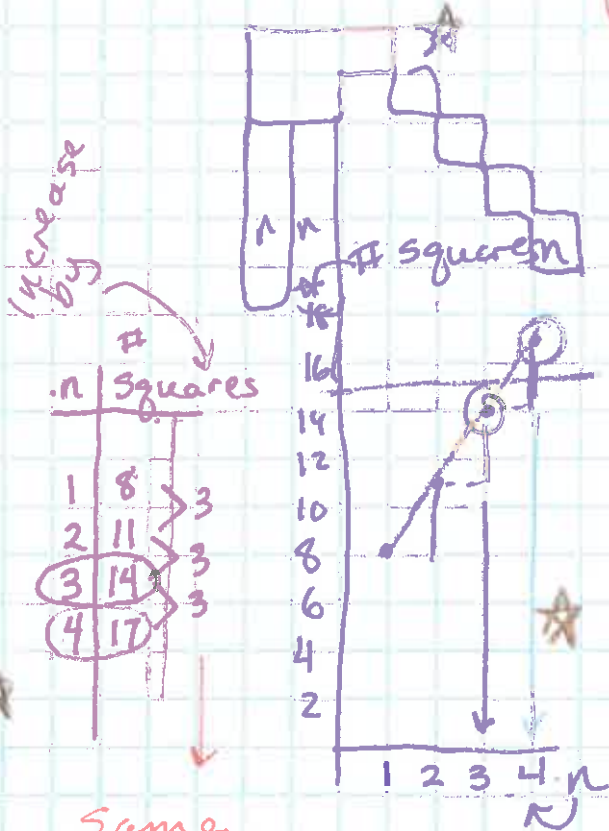


HWK

$$4n+3$$

do this \*

$$3n+5$$



When  $n=20$   
how many squares  
are shaded?

$$3 \cdot 20 + 5 = 60 + 5 = 65$$

$$5 + 20 + 20 + 20 = 65$$

↑

What is the smallest  $n$   
that has at least 15 squares?  
4

What is the biggest  $n$  that  
has at most 15 squares?  
3

Same  
linear / line

$$3 \cdot 3 + 5 < 15$$

$$15 < 3 \cdot 4 + 5$$

$$3n + 5 = 100$$

$$-5 \quad -5 \leftarrow$$

$$3n = 95$$

$$n = 31.67$$

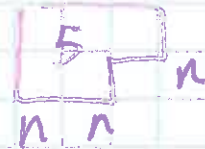
round up to 32

What is the smallest  $n$  that has  
at least 100 squares? \*

$$3 \cdot 30 + 5 = 95 \leftarrow \text{estimate}$$

$$3 \cdot 31 + 5 = 98 \left. \vphantom{3 \cdot 31 + 5 = 98} \right\} \text{check near}$$

$$3 \cdot 32 + 5 = 101 \left. \vphantom{3 \cdot 32 + 5 = 101} \right\} \text{estimate}$$



$$5 + 95 = 100$$

$$n + n = 95$$

$$3n = 95$$

$$n = \frac{95}{3} = 31 \text{ R } 2$$

32 → more than 95