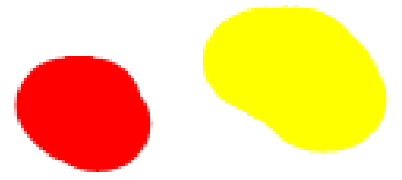
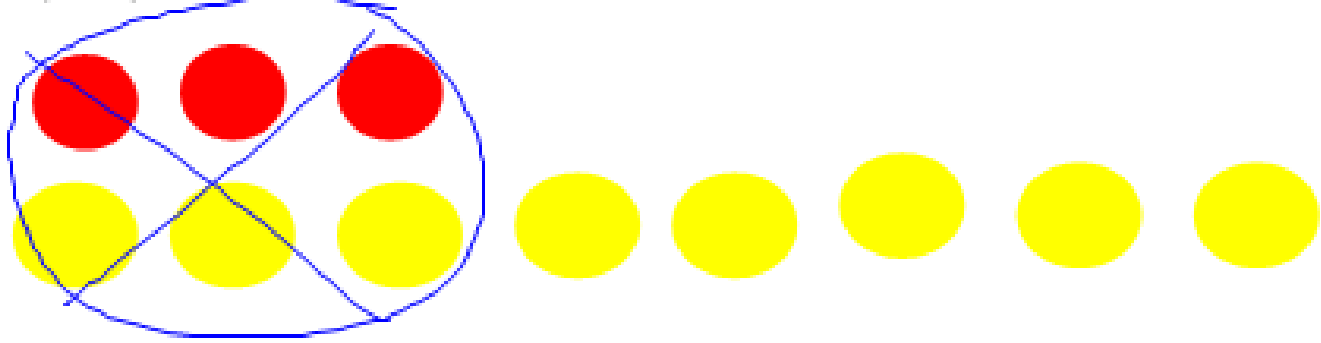
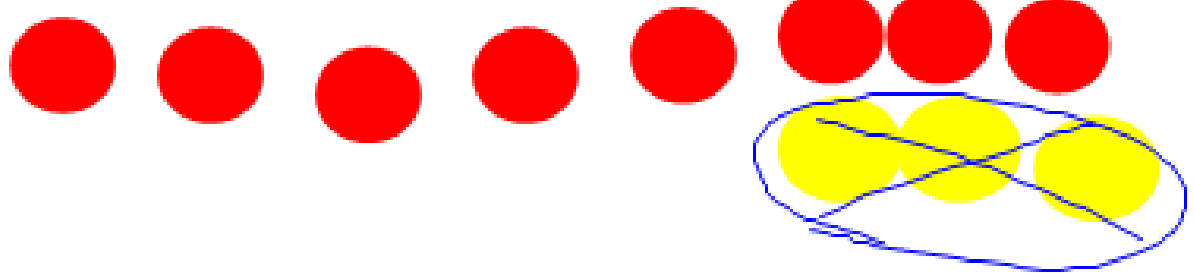


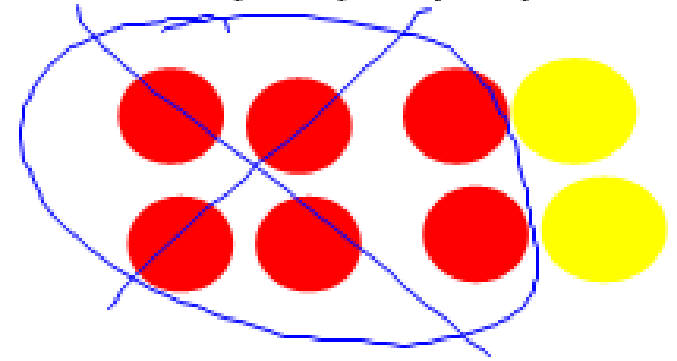
$$(-3) + 8 = 5$$



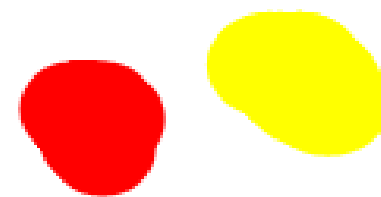
$$(-5) - 3 = -8$$



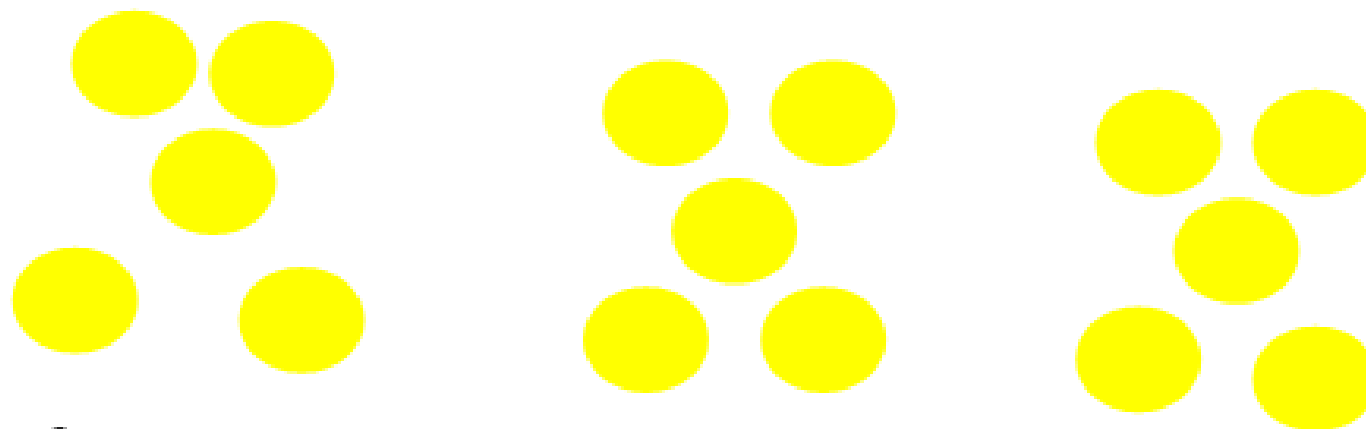
$$(-4) - (-6) = 2$$



3 times 5



Start with 0 and add three groups of 5 yellow counters

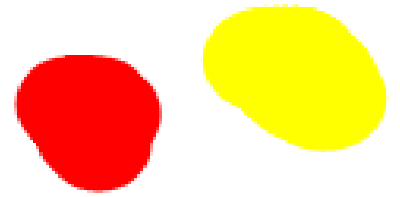


$$5 + 5 + 5 = 15 \checkmark$$
$$3 \cdot 5 = 15 \checkmark$$

NOTE: PRODUCT is the answer when you multiply.

The product of 3 and 5 is 15

**Multiplication as you know it is
“repeated addition” starting at 0**



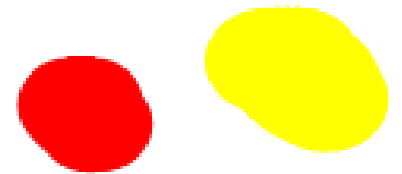
**The first number tells us “how many times” to do it
and the second number tells us “how many in each
group”**


So 8 times 4 is adding eight groups of positive 4

3 times negative 5

words:

add 3 groups of negative 5



 = red

 = yellow

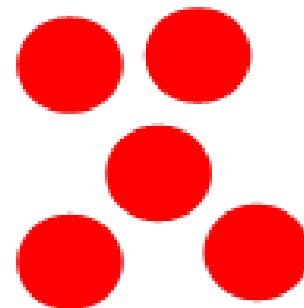
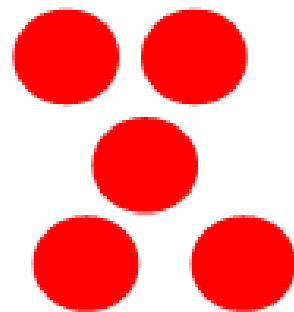
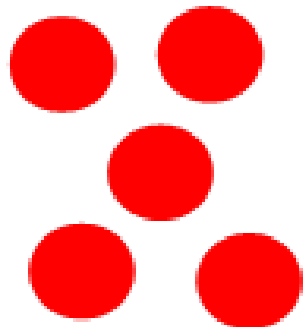
repeated addition equation:

$$(-5) + (-5) + (-5)$$

multiplication equation:

$$3 \times -5 \quad \text{OR} \quad 3 \cdot -5 \quad \text{OR} \quad 3(-5)$$

counters:



answer:

-15

$7(-2)$

words:

add seven groups of negative two

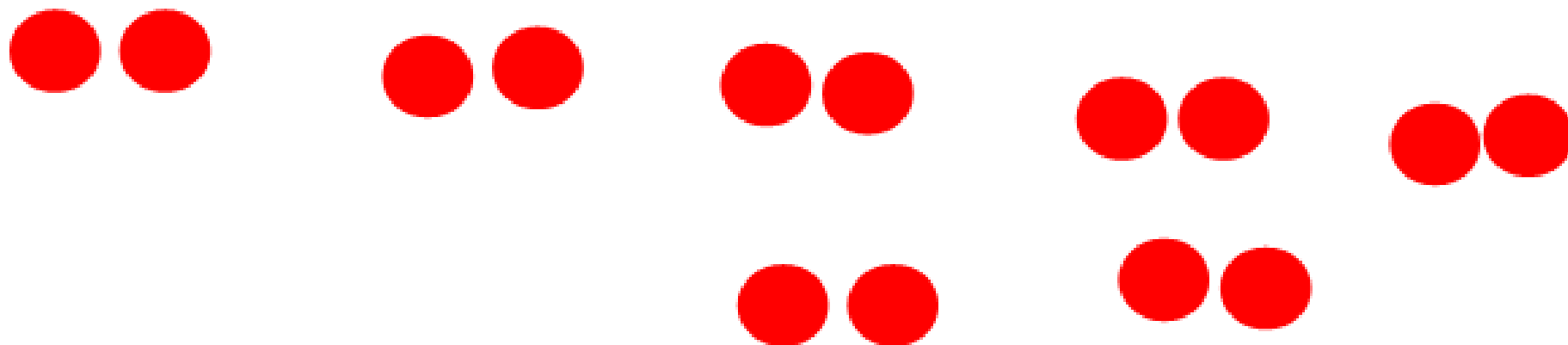
repeated addition equation:

$$(-2) + (-2) + (-2) + (-2) + (-2) + (-2) + (-2)$$

multiplication equation:

$$7 \cdot -2$$

counters:



answer:

$$-14$$

positive times positive = positive

positive times negative = negative

$$8 \cdot 2 \\ = 16$$

$$2 \cdot 8 \\ = 16$$

$3 \cdot -4$ and $-4 \cdot 3$

exact same thing
easier with
counters

-2.5 change it to $5 \cdot -2$

-4.8 change it to $8 \cdot -4$

Practice

pg 68 # 5, 6, 10a-e, 11a-e, 12, 14