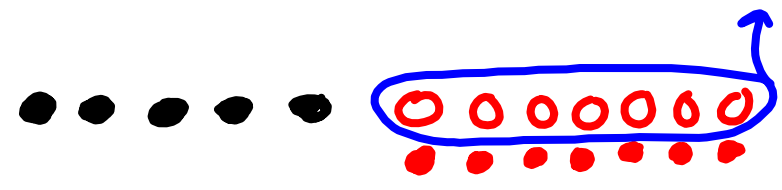
Warm Up Grade 7

Date: Feb 17



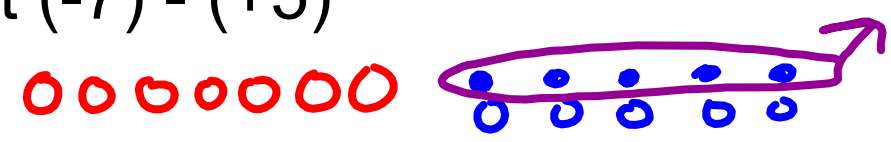
Use tiles to represent (+5) - (-7)

5 shaded can I remove 7 unshaded? No

Need zero pairs

$(+5)-(-7)=(+12)$

Use tiles to represent (-7) - (+5)



= 0000000 00000

$(-7)-(+5)=(-12)$

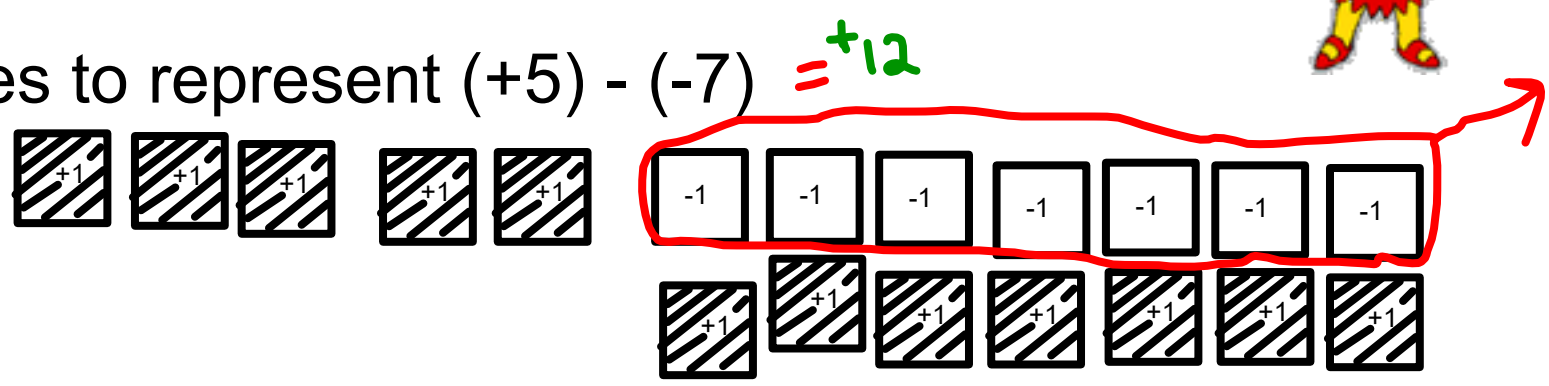
What do you notice when we reverse the order in which integers are subtracted?

ORDER Matters

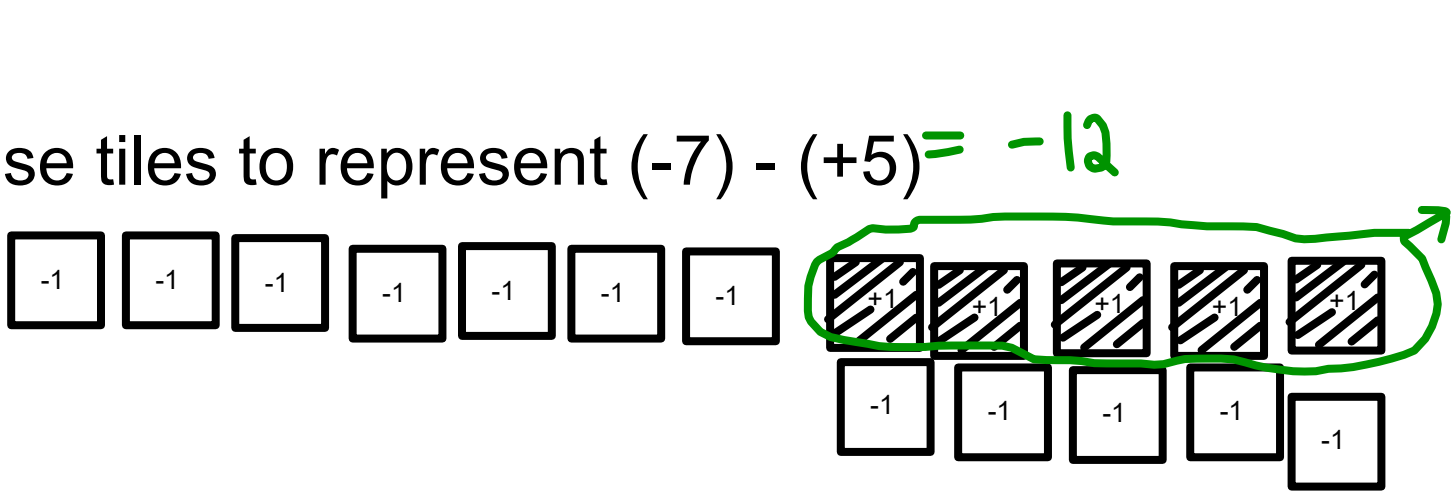
Warm Up Grade 7

Solutions

Use tiles to represent (+5) - (-7)



Use tiles to represent (-7) - (+5)



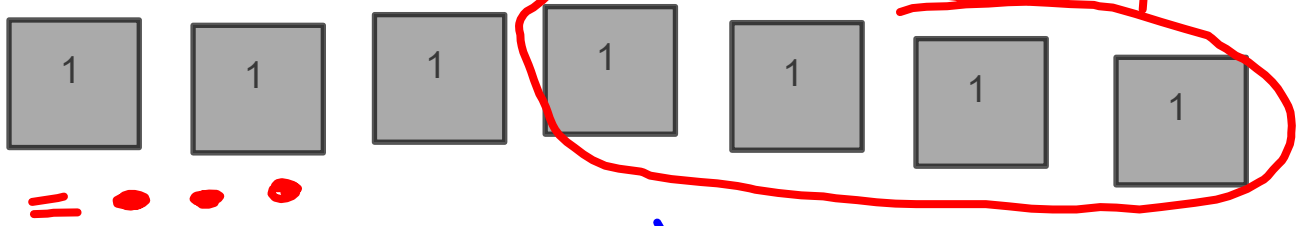
What do you notice when we reverse the order in which integers are subtracted?

When we reverse the order in which we subtract two integers, the answer is the opposite integer.

Homework Solutions

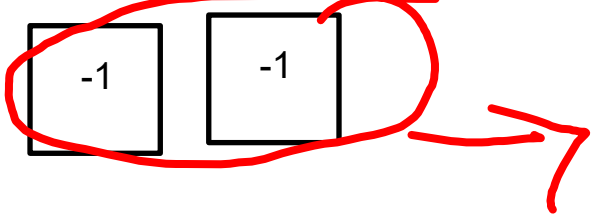
pg 69

1a) (+7) − (+4) = +3



= +3

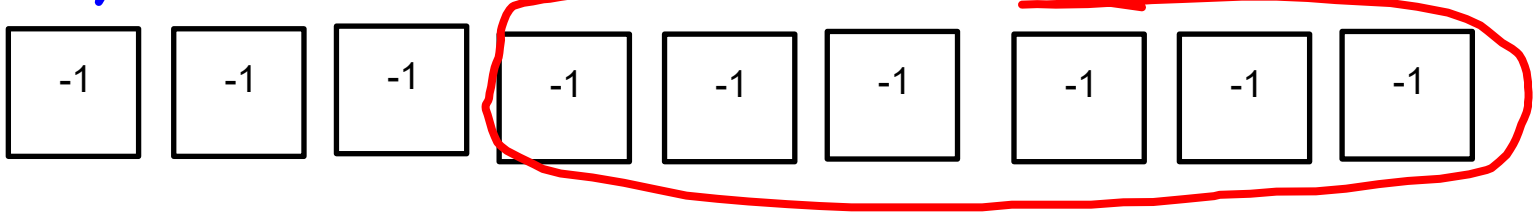
b) (−2) − (−2)



= zero

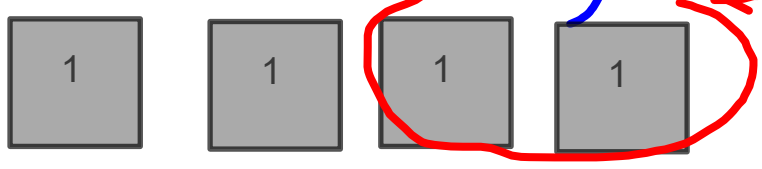
0

c) (−9) − (−6)



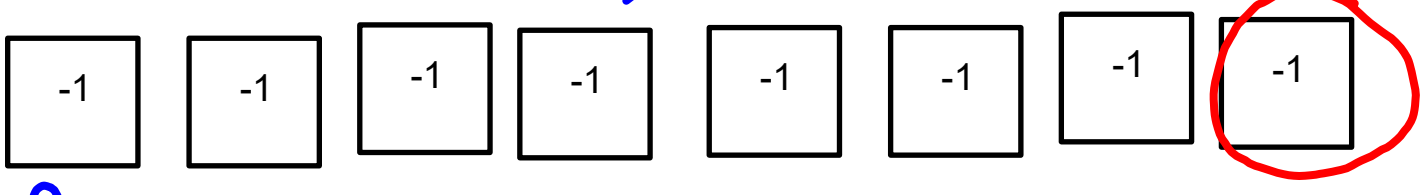
−3

d) (+4) − (+2)



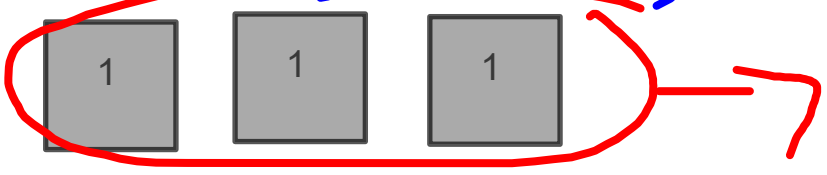
+2

e) (−8) − (−1)



−7

f) (+3) − (+3)

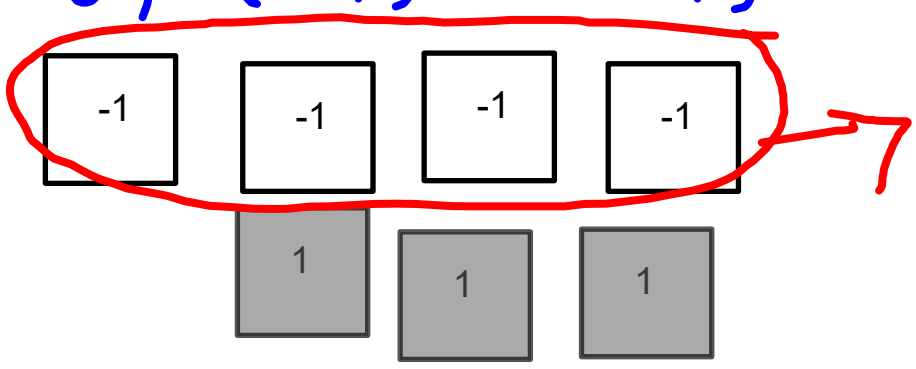


0

Homework

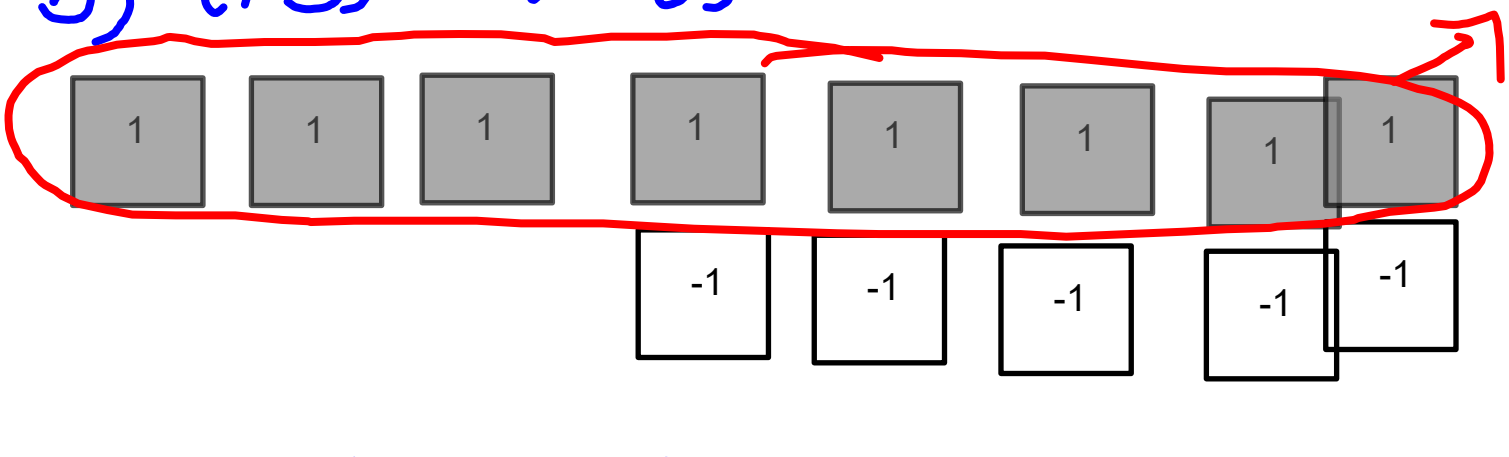
Solutions

2a) (-1) − (-4)



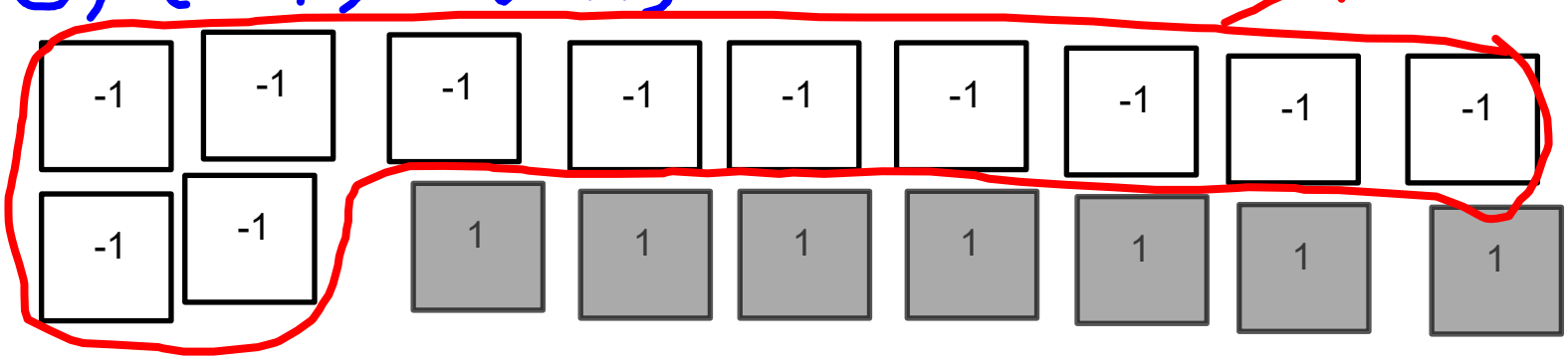
+3

b) (+3) − (+8)



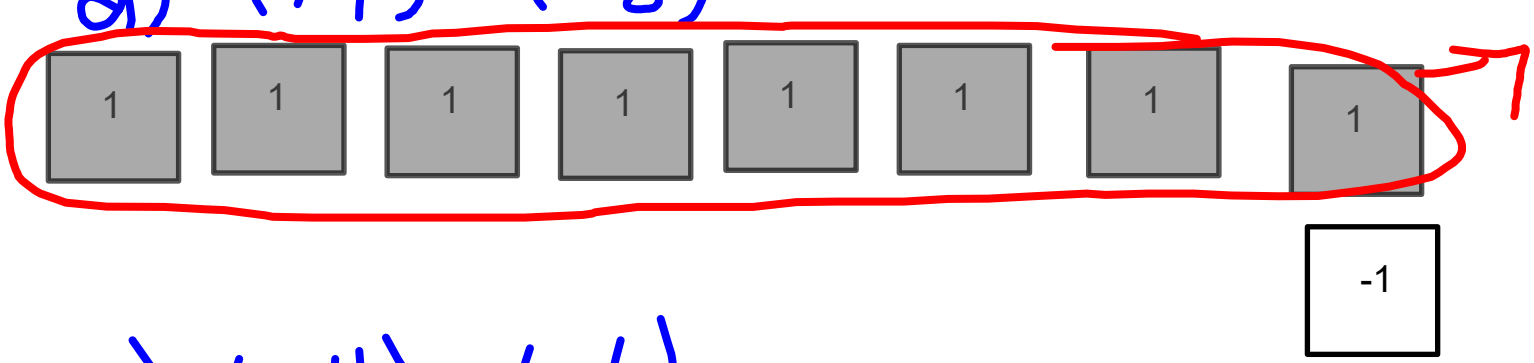
-5

c) (-4) − (-11)



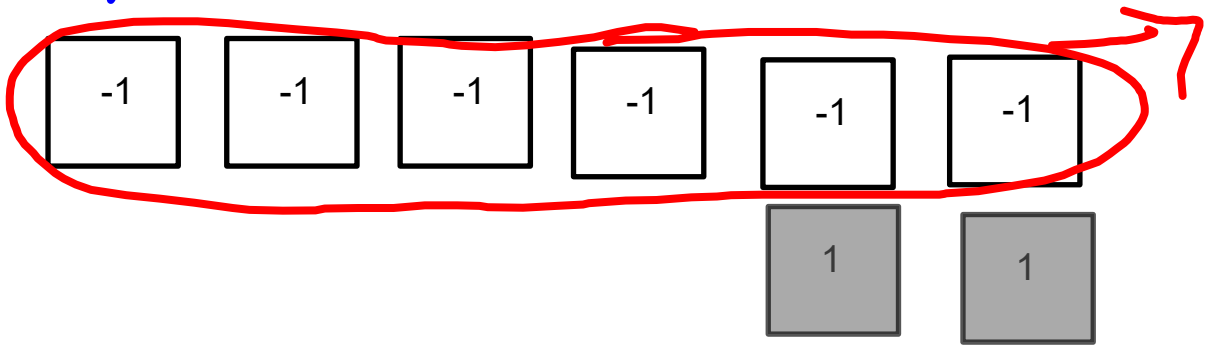
+7

d) (+7) − (+8)



−1

e) (-4) − (-6)

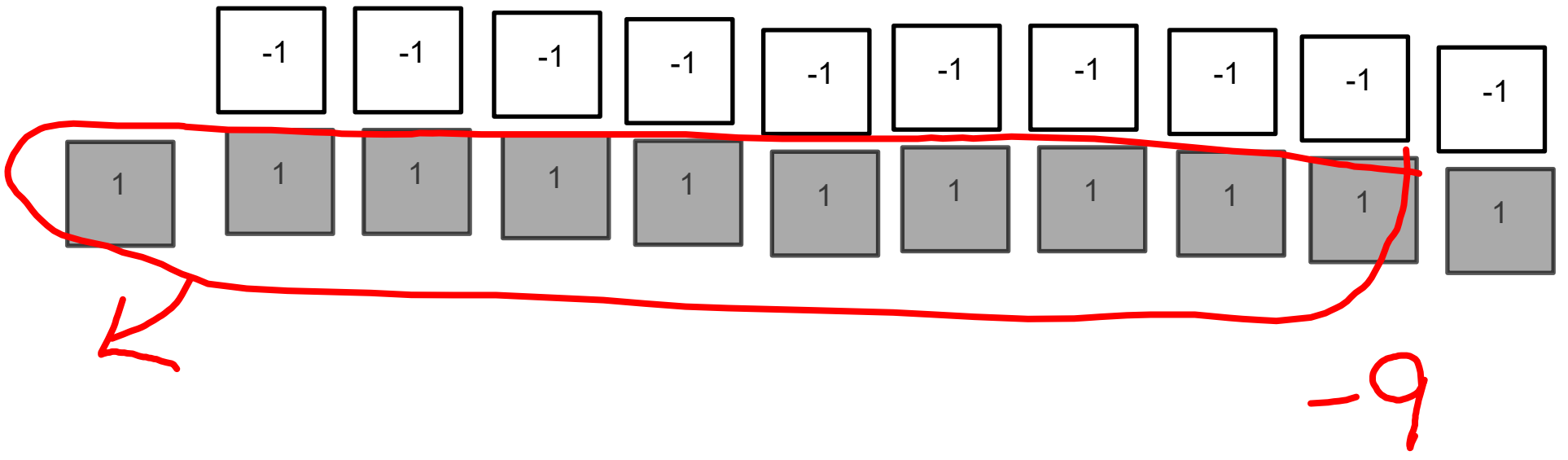


+2

f) (+1) − (+10)

Homework

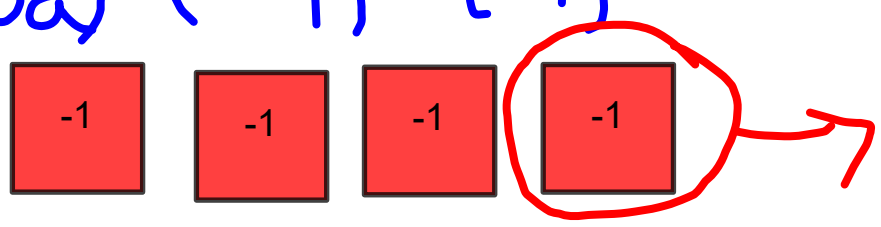
pg. 69 # 3,4,5,7,9,10,12,13
Try to figure the rule for subtracting integers



−9

Homework Solutions

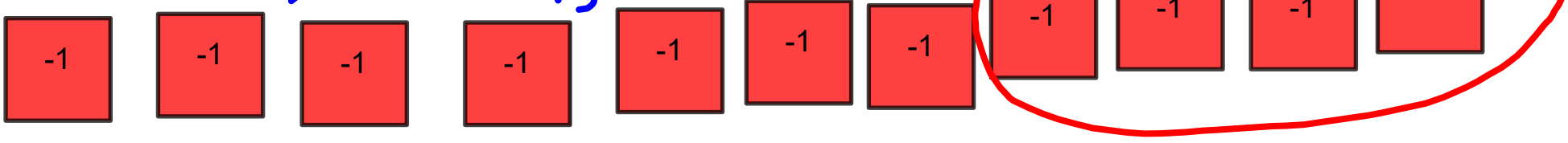
3a) $(-4) - (-1)$



-3

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

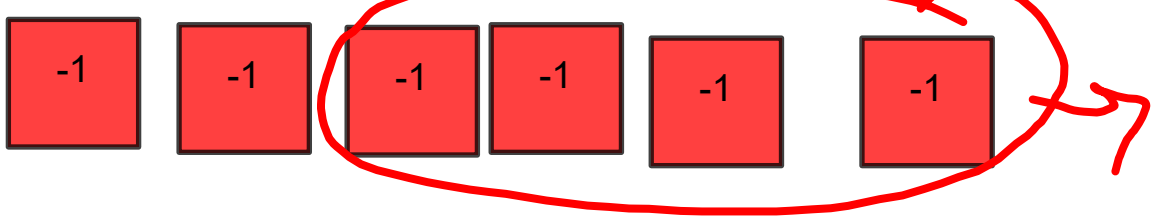
c) $(-11) - (-4)$



-7

d) $(+8) - (+7) = +1$

e) $(-6) - (-4)$

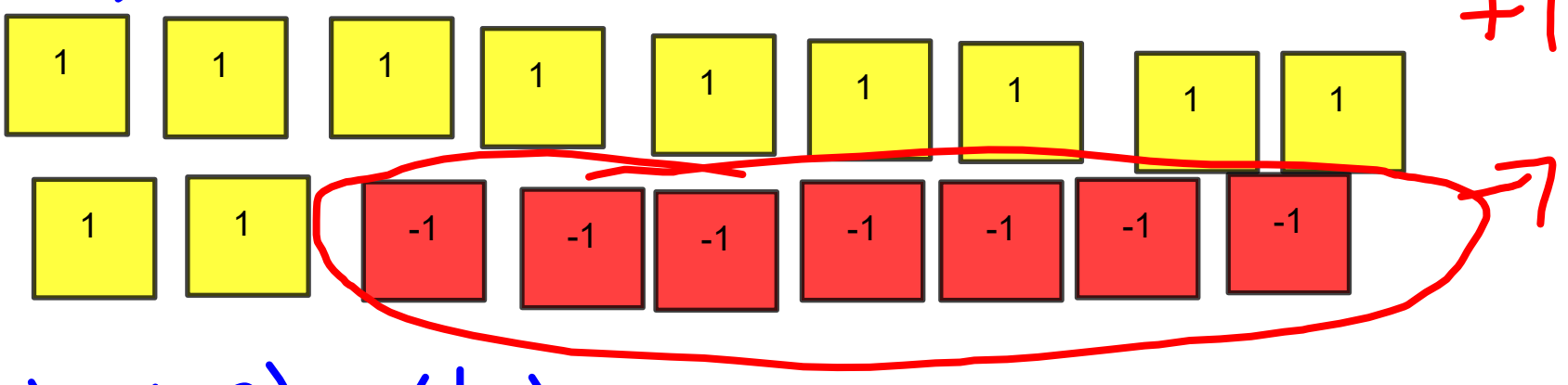


-2

f) $(+10) - (+1) = +9$

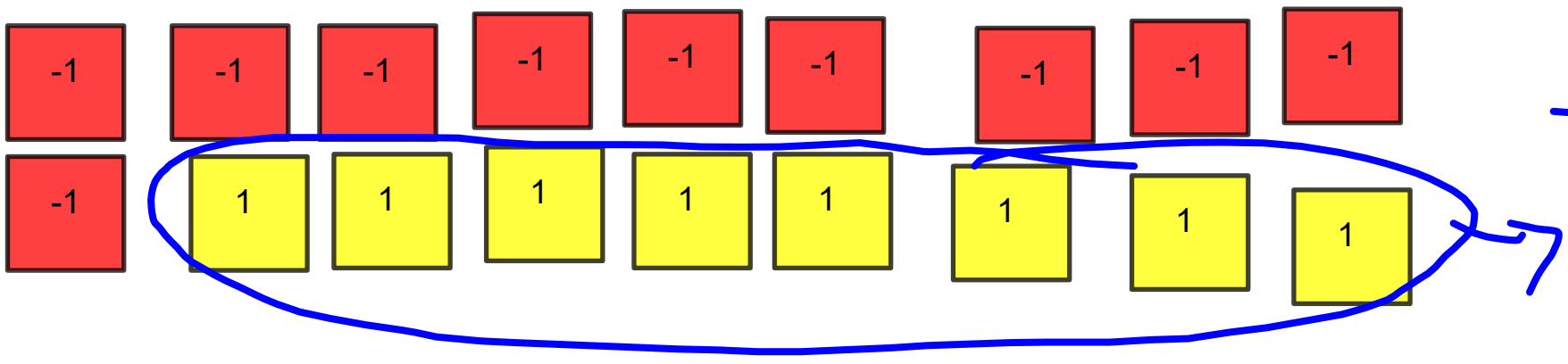
Homework Solutions

4a) (+4) − (−7)



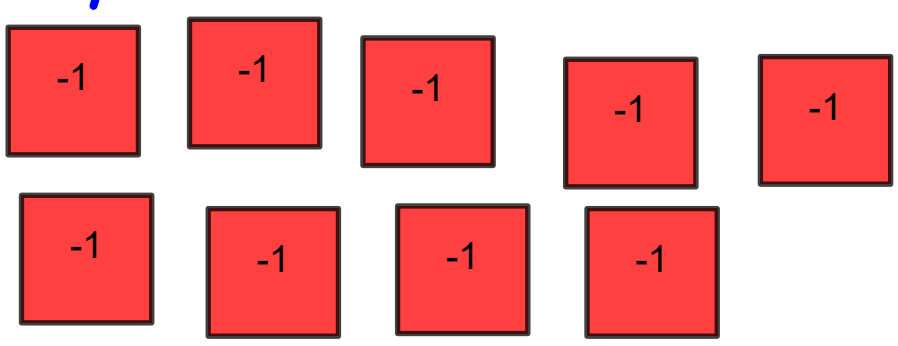
+11

b) (−2) − (+8)

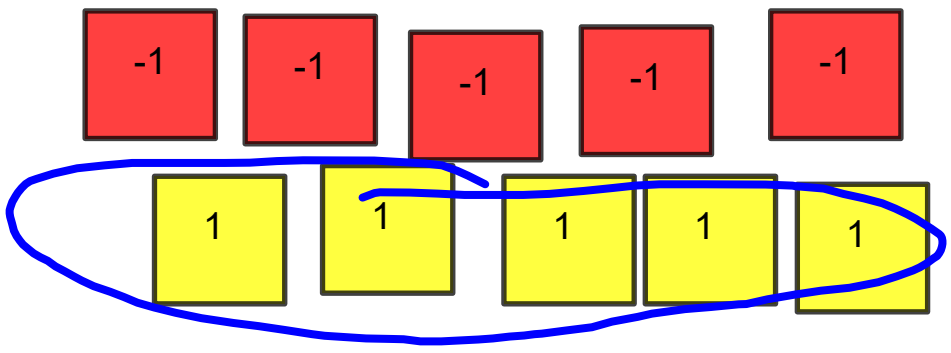


−10

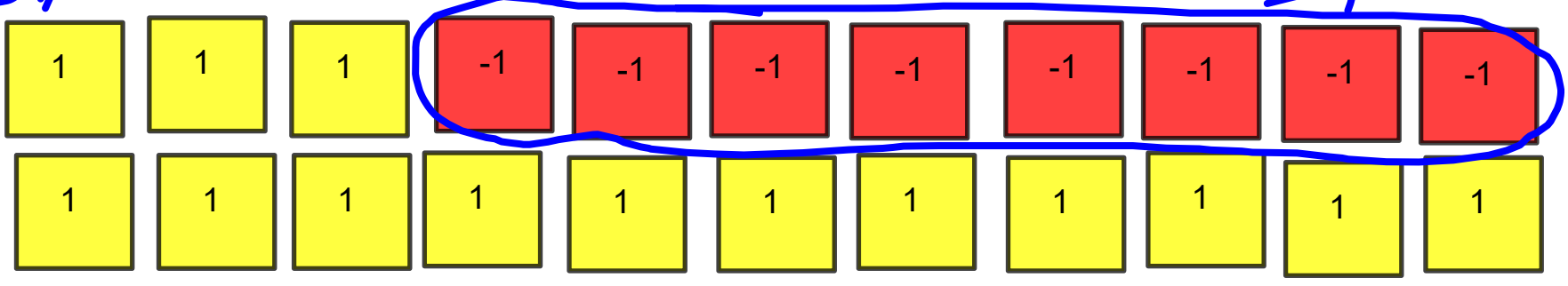
c) (−9) − (+5)



= −14

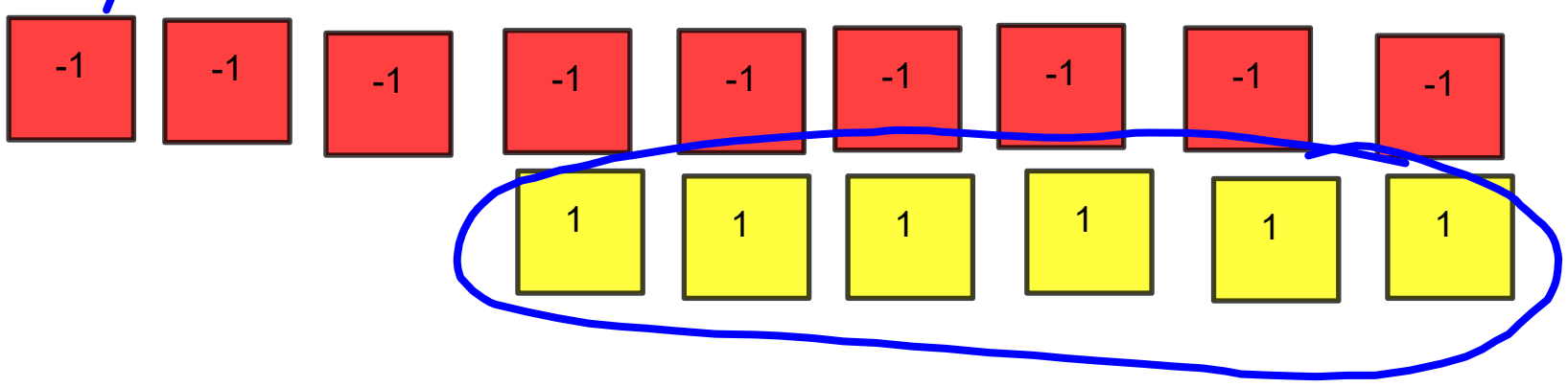


d) (+6) − (−8)



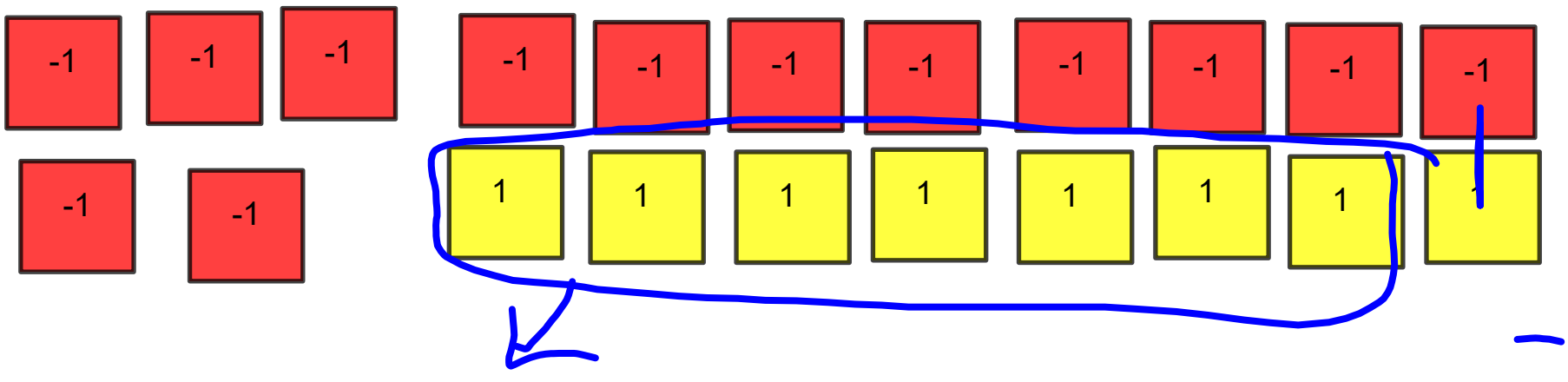
+14

e) (−3) − (+6)

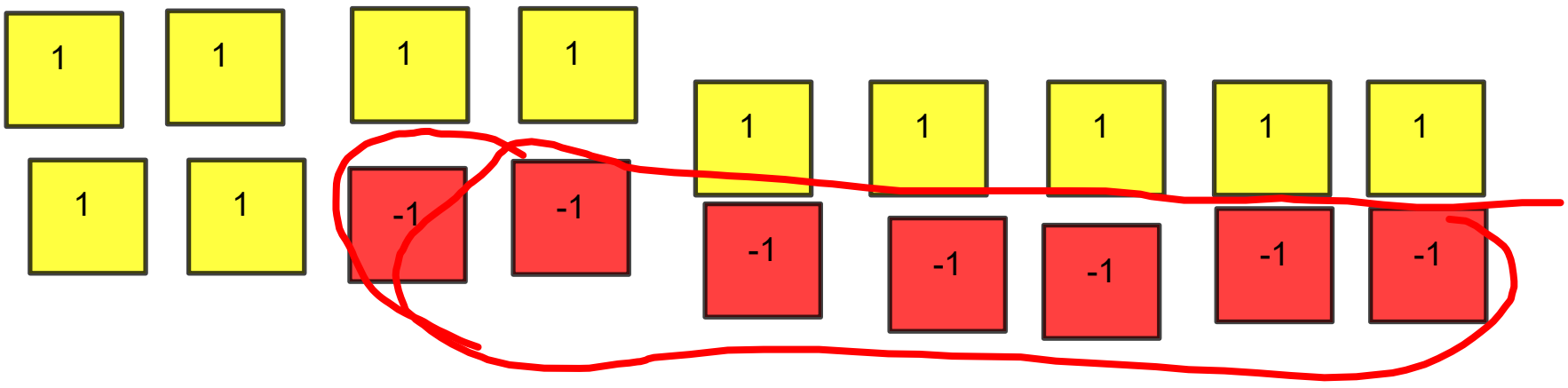


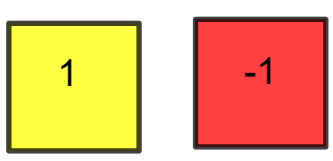
= −9

f) (−5) − (+7)



−12

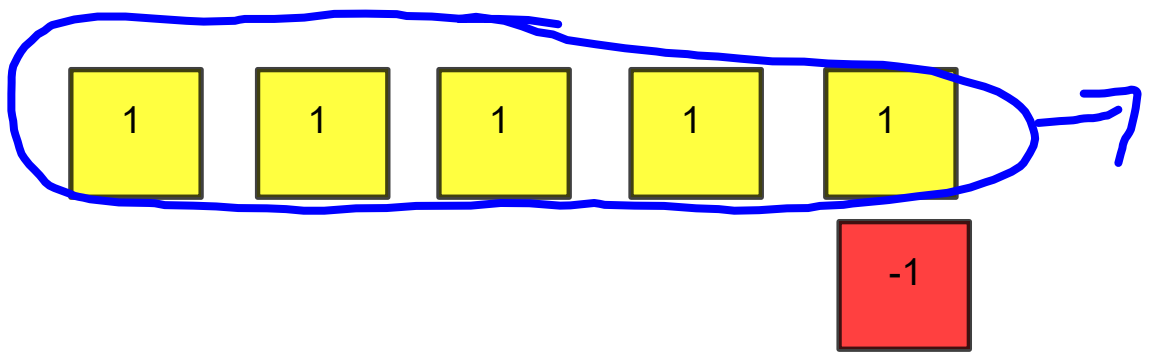




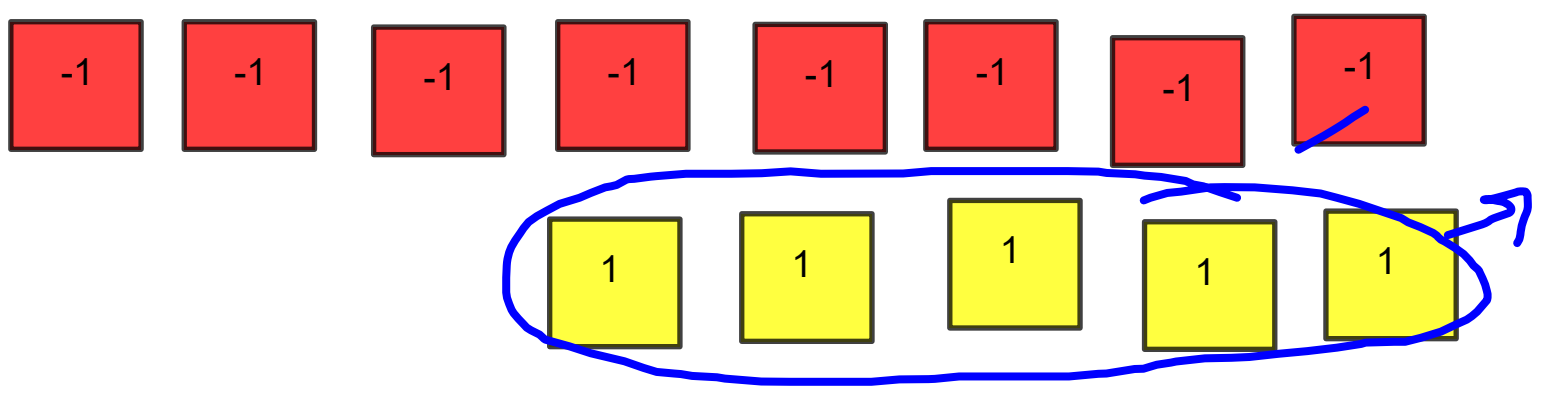
(+4) − (−7)

Homework Solutions

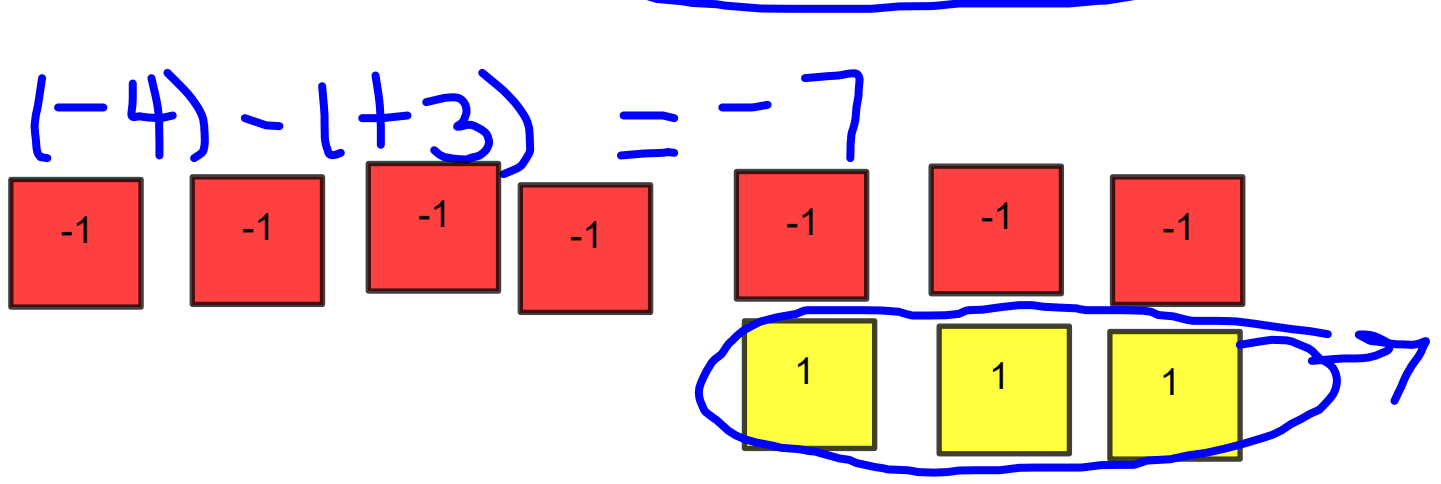
a) $(+4) - (+5) = -1$



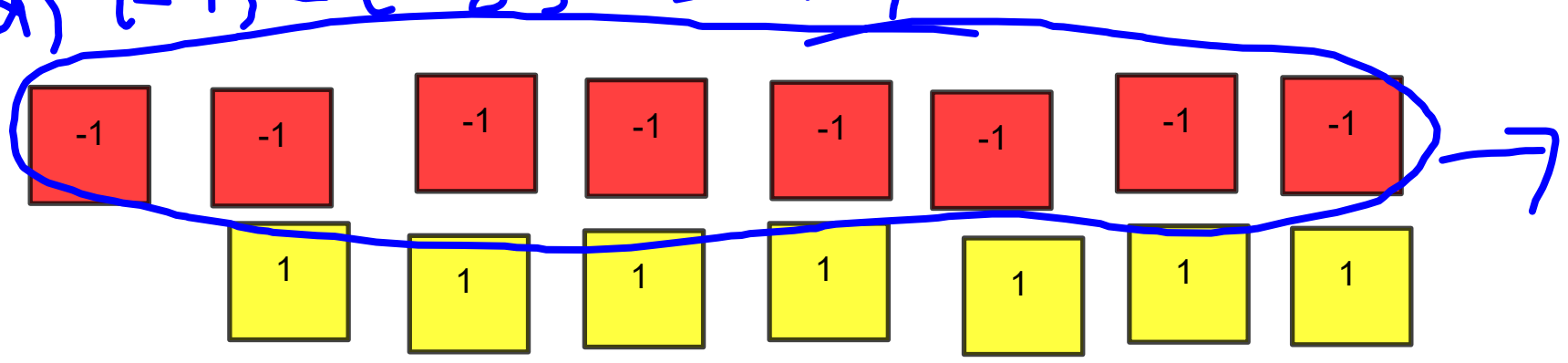
b) $(-3) - (+5) = -8$



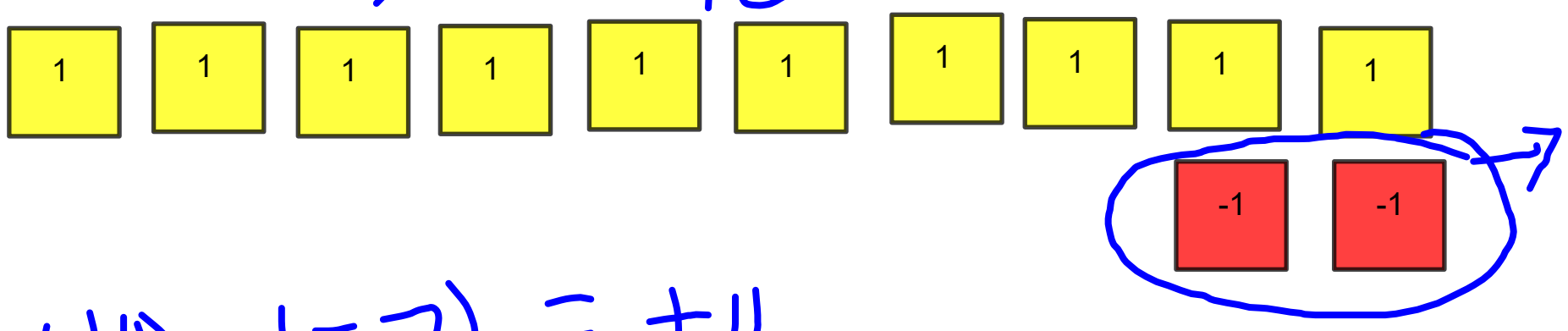
c) $(-4) - (+3) = -7$



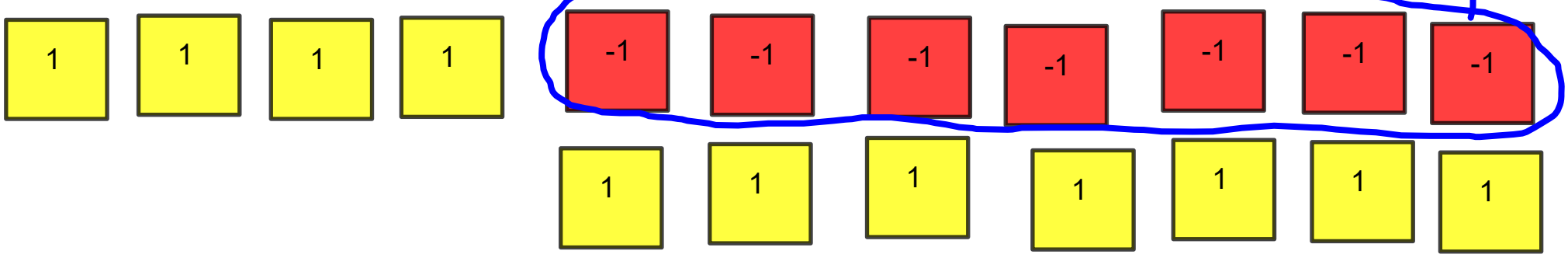
d) $(-1) - (-8) = +7$



e) $(+8) - (-2) = +10$



f) $(+4) - (-7) = +11$



Rules for Subtracting Integers

When you are subtracting integers, you can change the subtraction sign to addition, then change the number after the subtraction sign to its opposite. Then simply use your rules for adding integers. The number before the subtraction sign never changes.

Another way of saying the above is to "Add the Opposite"

Examples:

(+9) - (-2)
(+9) + (+2) = +11

(-15) - (+5)
(-15)+ (-5) = -20

(+12) - (+16)
(+12) + (-16) = -4

(+7) - (-5)
(+7) +(+5) = +12

(-2) -(-9)
(-2) + (+9) = +7

(-10) - (-8)
(-10) + (+8) =

Whenever you do subtracting integers questions you have to show the second step as done above.

Try some

(a) (-6) - (+3)
= (-6) + (-3)
= (-9)

(b) (+7) - (-5)
= (+7) + (+5)
= (+12)

(c) (+10) - (+12)
= (+10) + (-12)
= (-2)

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

(e) (+3) - (+10)
= (+3) + (-10)
= (-7)

(f) (-12) - (-3)
= (-12) + (+3)
= (-9)

(g) (+7) - (-6)
= (+7) + (+6)
= (+13)

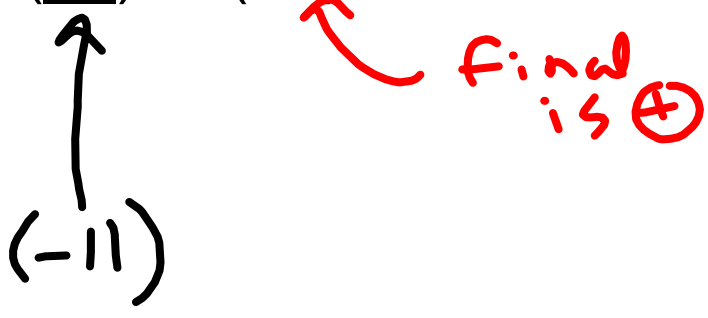
(h) (+ 20) - (+15)
= (+20) + (-15)
= (+5)

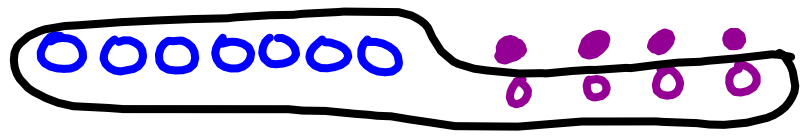
Similar to test question

Add to your notes

Use tiles to help answer the following:

(-7) - (___) = (+4)





Check

(-7) - (-11)

(-7) + (+11) = +4

USE RULES FOR ALL (No tiles or Number lines

Only add Opposite

Homework pg. 69-70 #~~4~~, 5, 7ai, 10,12, 13ab

pg 73 # 1,#3 (using rules instead of number line).

pg. 69 # 7,9,10,12,13

7 a) (i) $(+3)-(+1)=+2$

$(+1)-(+3)$
$(+1)+(-3)=-2$

(ii) $(-3)-(-2)$
$(-3)+(+2)=-1$

$(-2)-(-3)$
$(-2)+(+3)=+1$

(iii) $(+4)-(-3)$
$(+4)+(+3)=+7$

$(-3)-(+4)$
$(-3)+(-4)=-7$

7 (b) The order in which you subtract integers is important

$(+3)-(+1)$ is not the same as $(+1)-(+3)$

9. Subtraction question with answer:

a) +2 $(+4)-(+2)$ $(+10)-(+8)$

b) (-3) $(-5)-(-2)$ $(-8)-(-5)$
$(-1)-(+2)$

c) +5 $(+12)-(+7)$ $(+9)-(+4)$
$(+4)-(-1)$

d) -6 $(-8)-(-2)$ $(-5)-(+1)$
$(-3)-(+3)$

10 a) $(+3)-(-1)$

$(+3)+(+1)$

$+4$

Greater

$(-3)-(+1)$

$(-3)+(-1)$

-4

b) $(-4)-(-5)$

$(-4)+(+5)$

$+1$

Greater

$(+4)-(+5)$

$(+4)+(-5)$

-1

12 a) $(+4) - \square = +3$

$+1$

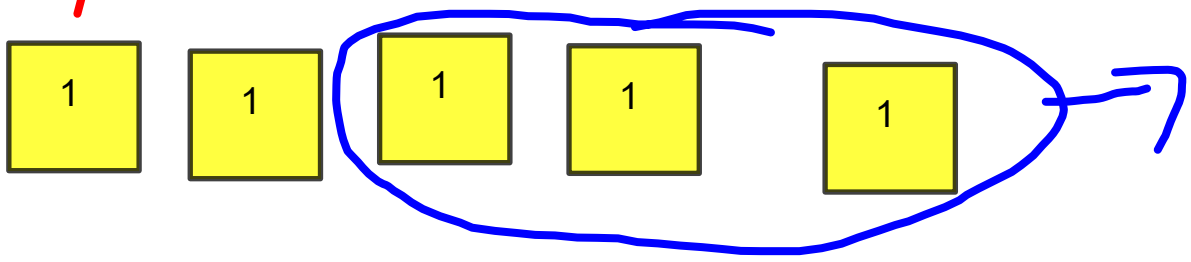
b) $(+3) - \square = -1$

$+4$

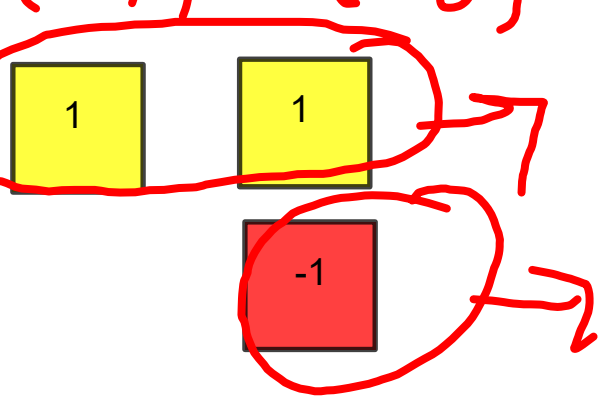
c) $\square - (+1) = +4$

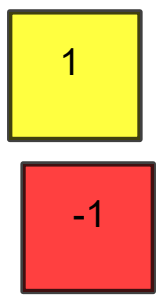
$+5$

13 a) $(+4) + (+1) - (+3) = +2$

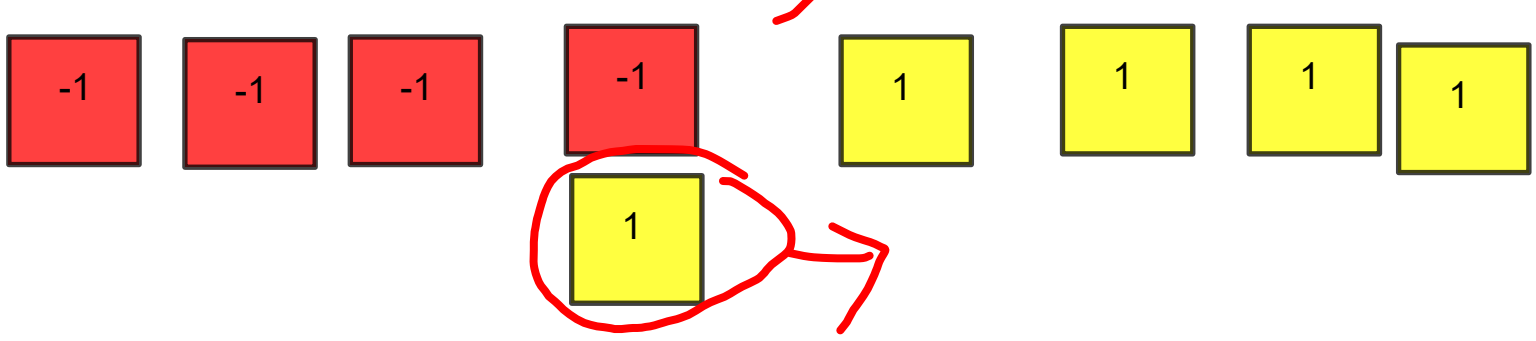


b) $(+1) - (+2) - (-1) = 0$





c) $(-3) - (+1) + (+4) = 0$



d) $(-2) - (-4) + (-1)$

$(-2) + (+4) + (-1) = +1$

e) $(+2) - (+1) - (+4)$

$(+2) + (-1) + (-4) = -3$

f) $(+1) - (+2) + (+1)$

$(+1) + (-2) + (+1) = 0$