Warm Up Grade 7

Mental Math

1) $26 \div 10 =$ 2.6

2) $30 \times 50 =$ 1500

3) $533 \times 100 =$ 53300

4) $8100 \div 100 =$ 81

5) $25.5 \times 10 =$ 255

6) $48 \times 0.5 =$ 24

like ÷ 2

Subtracting Integers using modeling

○ ⇒ neg
● ⇒ + Notes

May need to add zero pairs in order to subtract

remove

(-10) - (-5)

Step 1) Model the first integer

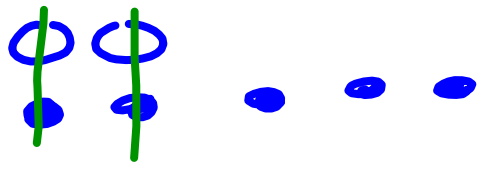
Is there enough tiles to take away -5? Yes

Sept 2) Show removing by circling the tiles that need to be removed and point a arrow away from the circle.

Sept 3) What remains is you answer to the difference question.

(-10) - (-5) = (-5)

$(-2) + (+5) = +3$



Remodel answer

Subtracting Integers using modeling

Notes

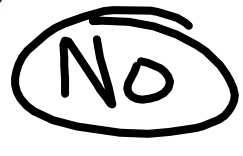
May need to add zero pairs in order to subtract

remove

$(-2) - (-5)$

Step 1) Model the first integer

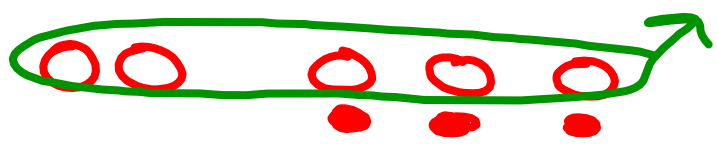
There are not enough tile to take away -5. To take away -5, we need 3 more negative tiles.



Sept 2) We add ZERO pairs without changing the value. Add 3 shaded and 3 unshaded to tiles.

Still models (-2) I didn't change the question.

Sept 3) Now take away 5 negative (unshaded) tiles.



Remodel Answer ⇒

$(-2) - (-5) = (+3)$

Subtracting Integers using modeling

Notes

May need to add zero pairs in order to subtract

remove

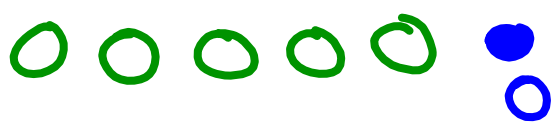
$(-5) - (+1)$

Step 1) Model the first integer

Can you remove the second integer? No

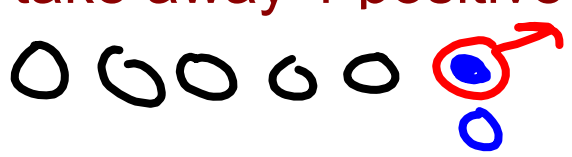
Step 2) We add ZERO pairs without changing the value. Add ___ shaded and ___ unshaded to tiles.

Still models (-5)



From this (-5) I now can remove 1 shaded

Sept 3) Now take away 1 positive (shaded) tiles.



Remodel Answer

= ooooo

$(-5) - (+1) = (\underline{-6})$

Your Turn

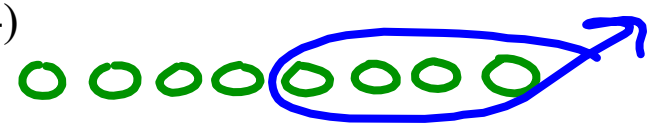
Subtracting Integers using modeling

May need to add zero pairs in order to subtract

(+5) - (+3)

⇒ ●●
(+2)

(-8) - (-4)

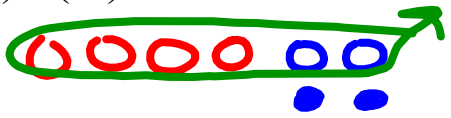


Remodel Answer
= 0000
(-4)

(-6) - (-5)

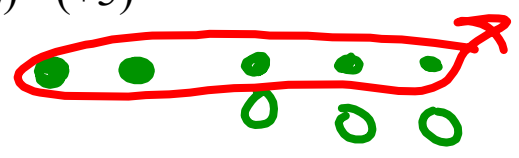
Remodel Answer ⇒ 0
(-1)

(-4) - (-6)



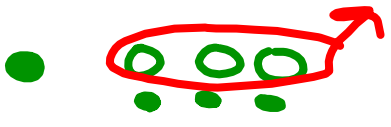
⇒ ●● (+2)

(+2) - (+5)

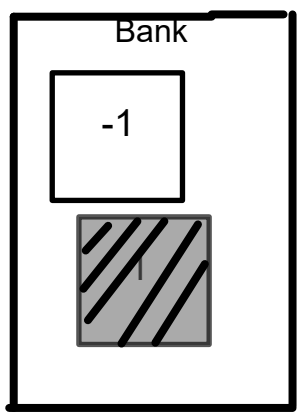


= ooo (-3)

(+1) - (-3)



= ●●●●
(+4)



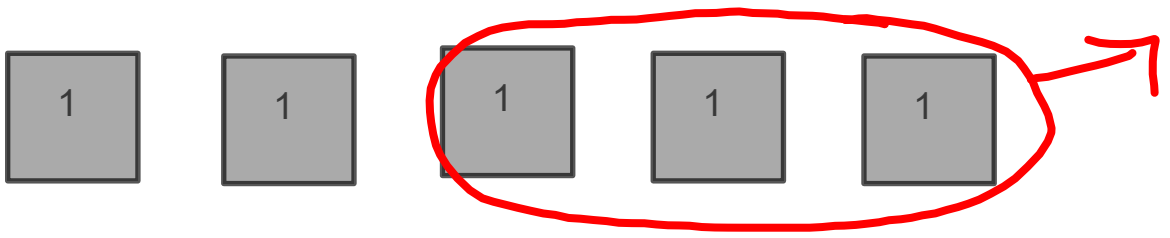
-1

1

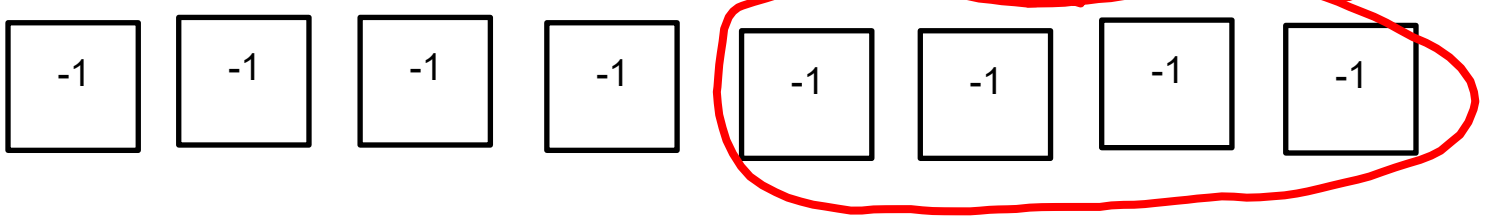
SOLUTIONS

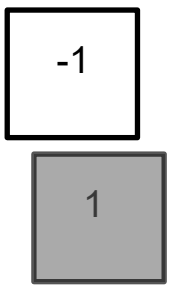
Subtracting Integers using modeling

(+5) - (+3) = +2

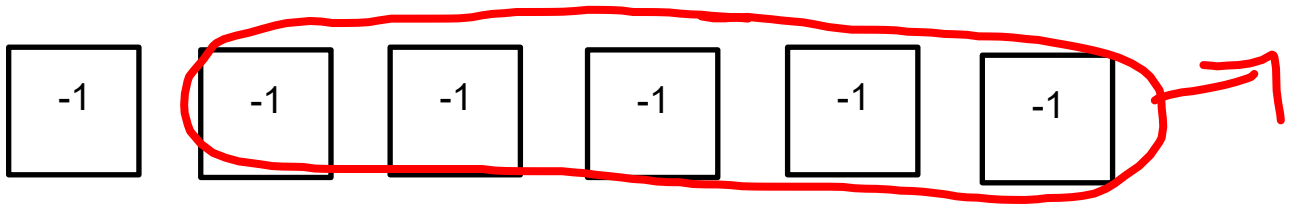


(-8) - (-4) = -4

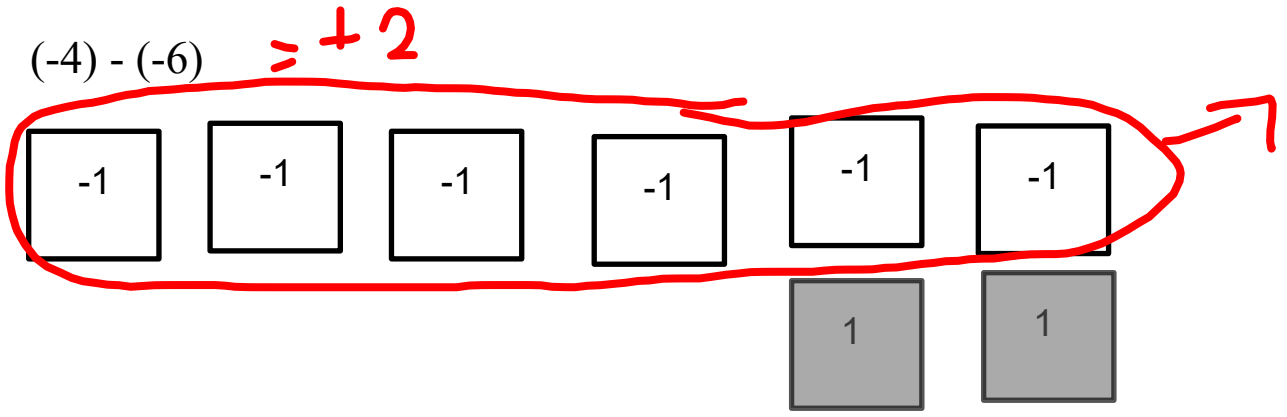


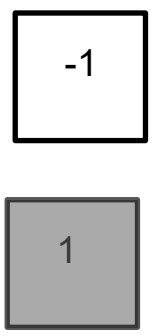


(-6) - (-5) = -1

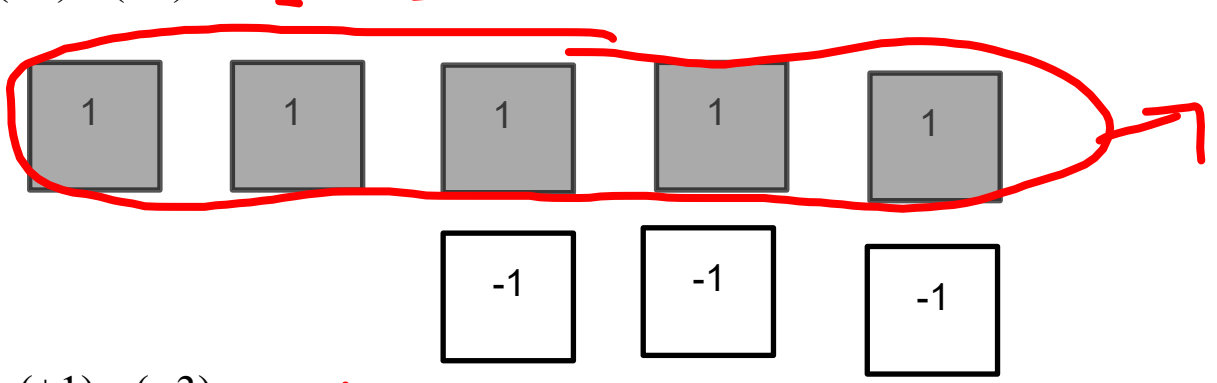


(-4) - (-6) = +2

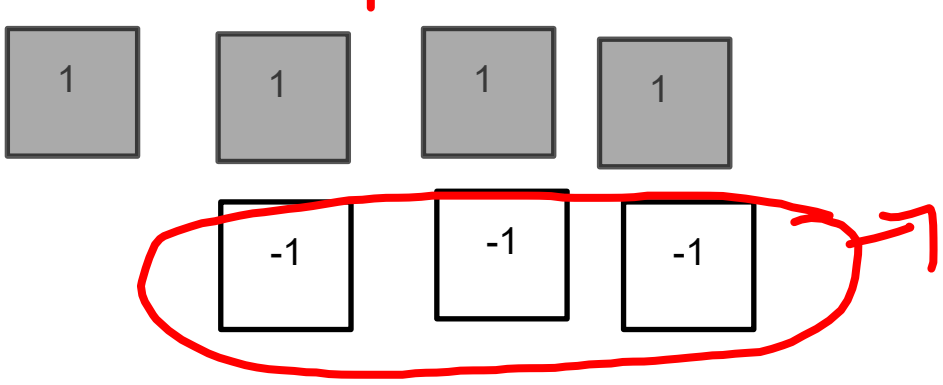




(+2) - (+5) = -3



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

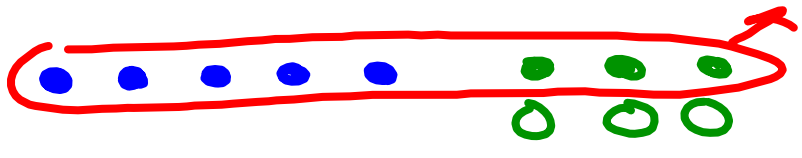


Similar to test question

Add to your notes

Use tiles to help answer the following:

(+5) - (___) = (-3)



Need to Remove 8 shaded

$(+5) - \boxed{(+8)} = (-3)$

Class/Homework

Gr 7 Textbook

pg. 69

Model

#1 a d e
#2 a d e
#3 a d e
#4 a d e
#5 o d e

/15

1. Use tiles to subtract. Draw pictures of the tiles you used.

a) $(+7) - (+4)$ **b)** $(-2) - (-2)$ **c)** $(-9) - (-6)$

d) $(+4) - (+2)$ **e)** $(-8) - (-1)$ **f)** $(+3) - (+3)$

2. Use tiles to subtract.

a) $(-1) - (-4)$ **b)** $(+3) - (+8)$ **c)** $(-4) - (-11)$

d) $(+7) - (+8)$ **e)** $(-4) - (-6)$ **f)** $(+1) - (+10)$

3. Subtract.

a) $(-4) - (-1)$ **b)** $(+8) - (+3)$ **c)** $(-11) - (-4)$

d) $(+8) - (+7)$ **e)** $(-6) - (-4)$ **f)** $(+10) - (+1)$

4. Subtract. Write the subtraction equations.

a) $(+4) - (-7)$ **b)** $(-2) - (+8)$ **c)** $(-9) - (+5)$

d) $(+6) - (-8)$ **e)** $(-3) - (+6)$ **f)** $(-5) - (+7)$

5. Subtract.

a) $(+4) - (+5)$ **b)** $(-3) - (+5)$ **c)** $(-4) - (+3)$

d) $(-1) - (-8)$ **e)** $(+8) - (-2)$ **f)** $(+4) - (-7)$