Warm Up Grade 8

Date: Sept 30

1) Evaluate. Show all steps

a) $\dfrac{(-9)(-8) + [(-4)+(-8)]}{(+5)(-2)}$ Bottom $= \dfrac{+60}{-10} = -6$

Top

$(-9)(-8) + [(-4)+(-8)]$

$= (-9)(-8) + (-12)$

$= (+72) + (-12)$

$= (+60)$

b) $2[(-4) - (-10)] - 3$

add, opp

$= 2[(-4) + (+10)] - 3$

$= 2(+6) - 3$

$= (+12) - 3$

$= +9$

3) Fill in the next 3 term. Write the pattern (Where does it start and how do you get the term)

-2, +10, -50, +250, -750, +____

x(-5)

2) With the following set of integers, which pair has the greatest product?

multiply

+3, -9, -7, +6

positive

$(-)\cdot(-) = +$

$(+)\cdot(+) =$

$(-9)(-7) = +63$

$(+3)(+6) = +18$

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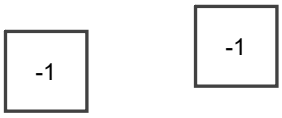
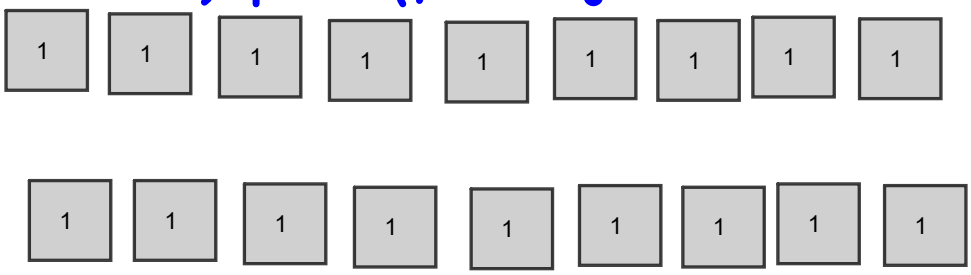
1. $(+2) \times (-1)$

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



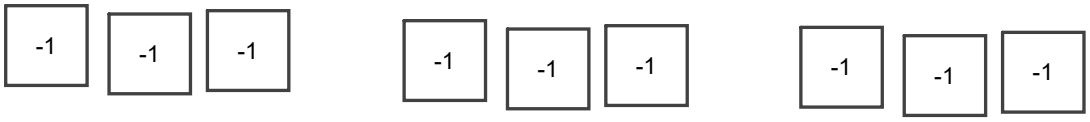
b) $(+2) \times (+9)$

$(+9)+(+9)=+18$



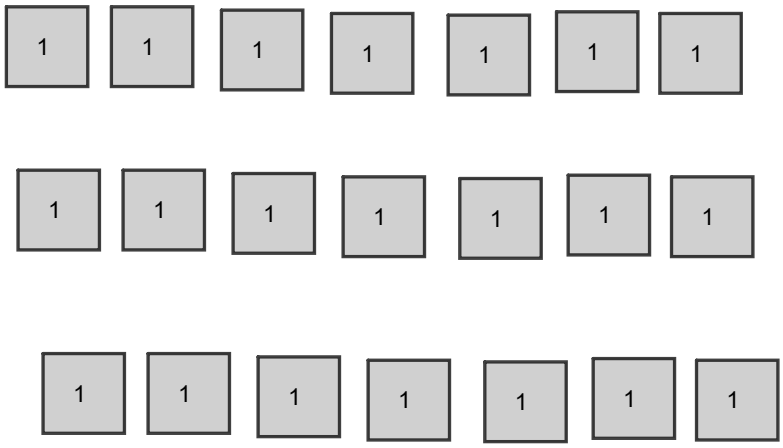
c) $(+3) \times (-3)$

$(-3)+(-3)+(-3)=-9$



d) $(+3) \times (+7)$

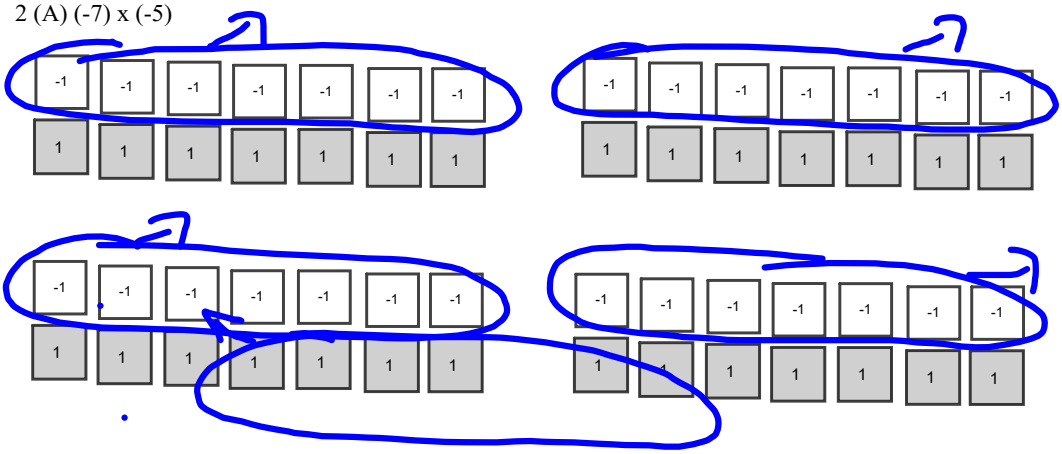
$(+7)+(+7)+(+7)$

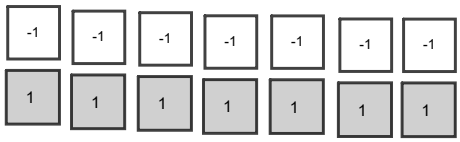


2. (-7)x(-5)

PG 97

2 (A) (-7) x (-5)

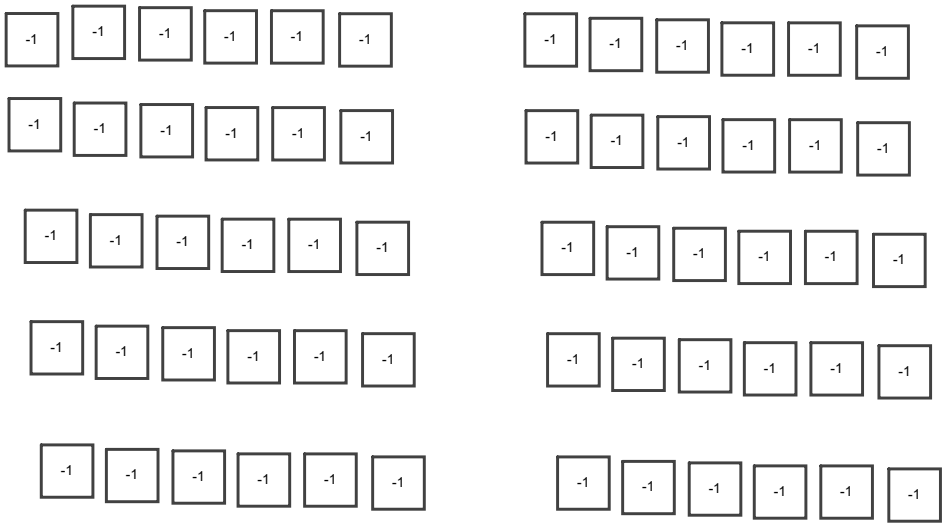




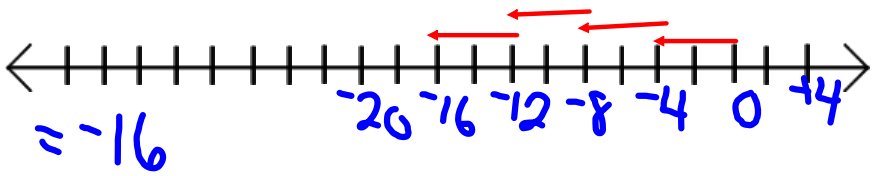
Take away 5 groups of -7

b) (+10)x(-6)

10 groups of -6



c) -4x(+4)



= -16

d) (+6)x(+8)

8 groups of 6 positives

= +48

3. 4 hours → 8 half hours

Temp change → $8 \times (-2)$
-16

Temp after 4 hours
$+6 + (-16)$
-10

4. a) $(+25) \times (-31)$
neg

b) $(-13) \times (-15)$
pos.

c) $(-11) \times (+12)$
neg

d) $(+9) \times (+13)$
pos

5. a) $(+9) \times (-7)$
-63

b) $(+4) \times (+7)$
$+28$

c) $(-11) \times (+13)$

	10	1
10	10x10 = 100	10x1 = 10
3	3x10 = 30	3x1 = 3

$11 \times 12 = 132$
so $11 \times 13 = 143$
-143

d) $(-40) \times (-22)$
$4 \times 22 = 88$
$40 \times 22 = 880$
$+880$

	40
20	40x20
2	2x40

e) $(-1) \times (+17)$
-17

f) -37×0
0

$(-32) \times (+15)$

Ignor sie

$[(-30) + (-2)] \times ((+10) + (+5))$

$[(-30)\times(10)] + (-30)\times(+5) + (-2)(+10 + (-2)(+5)$

$(-32) \times (+15)$

Ignore signs

$= (10 \times 30) + (10 \times 2) + (5 \times 30) + (2 \times 5)$

$= 300 + 20 + 150 + 10$

$= 480$

	30	2
10	$10 \times 30 = 300$	$10 \times 2 = 20$
5	$5 \times 30 = 150$	$2 \times 5 = 10$

$(-32) \times (15) = -480$

6. a) $(-12) \times \underline{\quad} = +72$, $\underline{\quad} = -6$

b) $\underline{\quad} \times (+8) = +80$, $\underline{\quad} = +10$

c) $+7 \times \underline{\quad} = 0$, $\underline{\quad} = 0$

d) $\underline{\quad} \times (-4) = -60$, $\underline{\quad} = +15$

7 a) $(-55) \times 6$

55×6

$50 \times 6 = 300$

$5 \times 6 = 30$

$55 \times 6 = 330$

-330 ml of water

8) $(+5) \times (-7)$

I have 5 friends that I owe $7 each to. How much do I owe?

Review for Test

Be able to multiply and divide integers, using;
- models (Tiles)
- number lines (only multiplication on test tomorrow)
- rules for multiplying and dividing

Be able to add and subtract integers using rules

Be able to recognize using models and number lines to add and subtract integers.

Be able to apply the rules for adding, subtracting, multiplying and dividing integers with order of operations. (BEDMAS)

10 MC

7 Short Response a) (-) x (-)

*Model multiplication with tiles b) (+) x (-)

*Similar to yesterday's warmup (find the pattern, what two number produce largest product or smallest product)

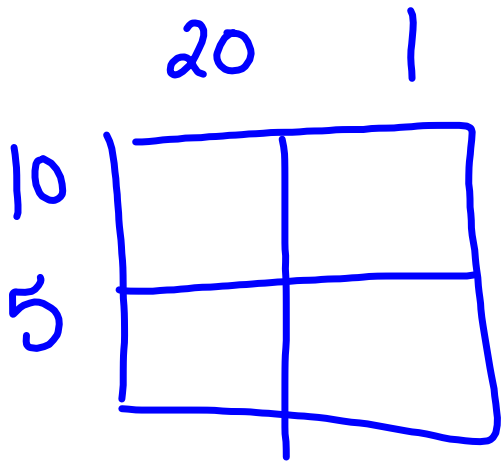
*similar to today's warmp (Especially word problem)

*Multiply using distributive property Ex) (-21) x (+15) No calculators

* Evaluate multiplication and division

*BEDMAS

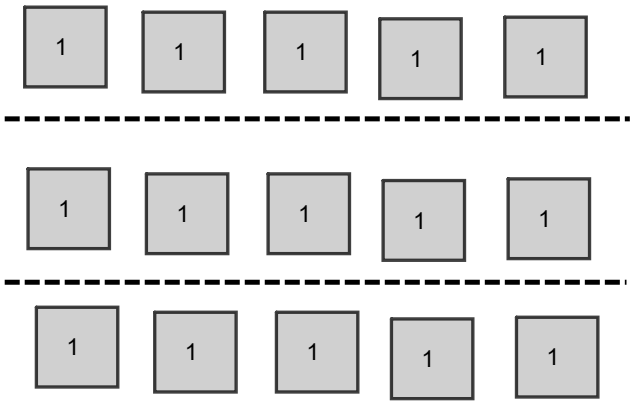
$$\begin{array}{r} 21 \\ \times\ 15 \\ \hline \end{array}$$



$20 \times 15 = \_$

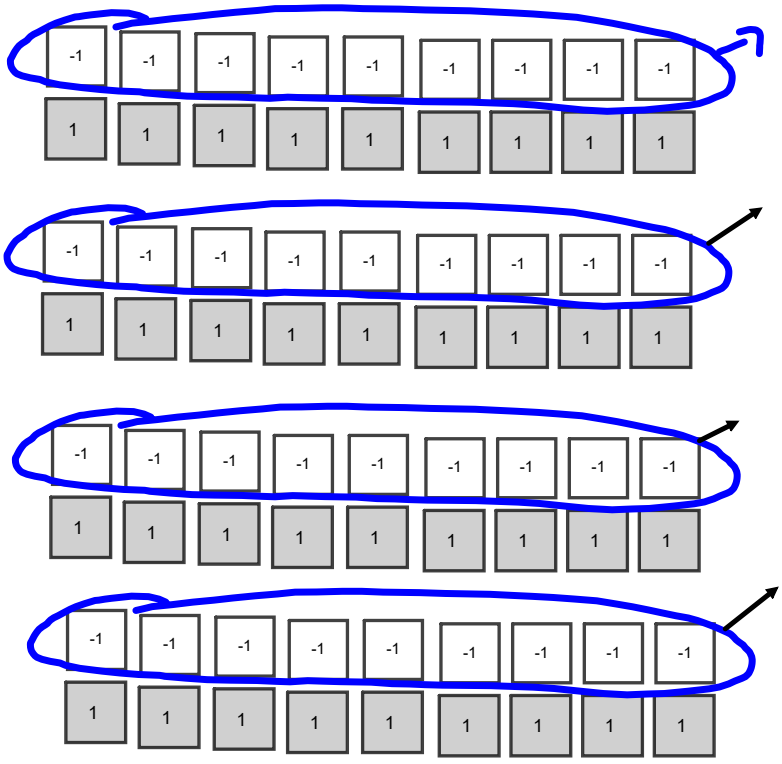
$1 \times 15 = \_$

9. (+15) ÷ (+3)



9 (b) (+36) ÷ (-9)

rewrite (___) x (-9) = (+36)



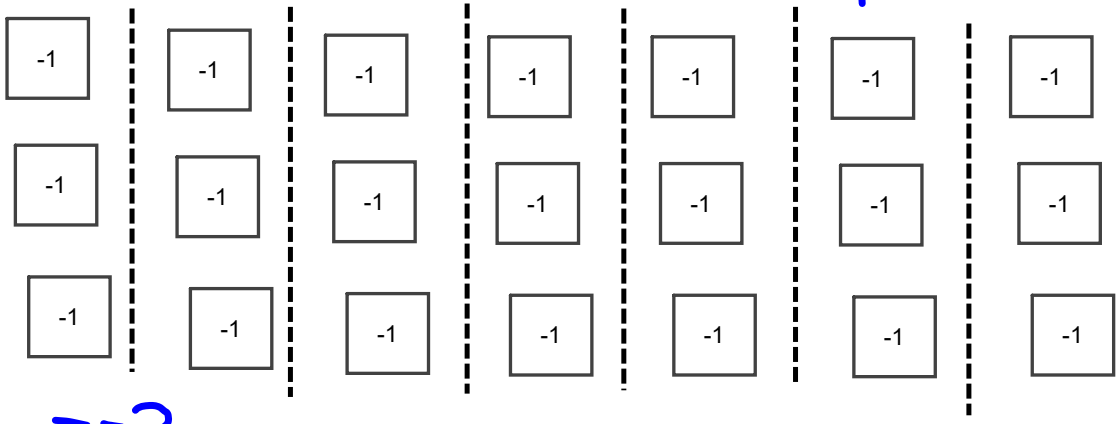
Take away 4 groups of -9

+36 ÷ (-9) = -4

-1

c) $(-21) \div (+7)$

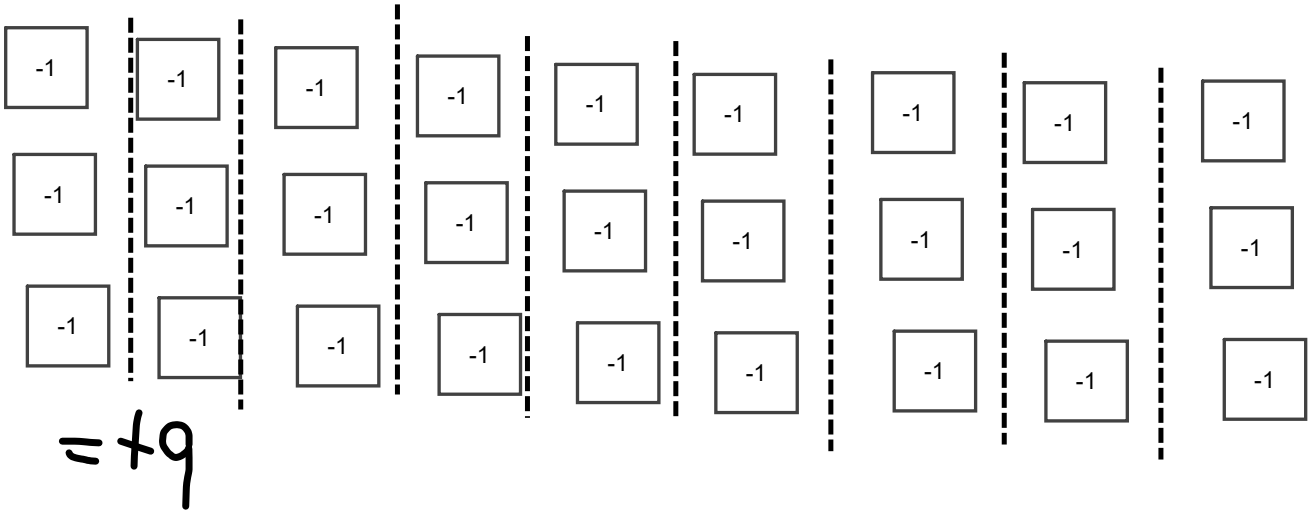
Divide -21 into 7 groups



$= -3$

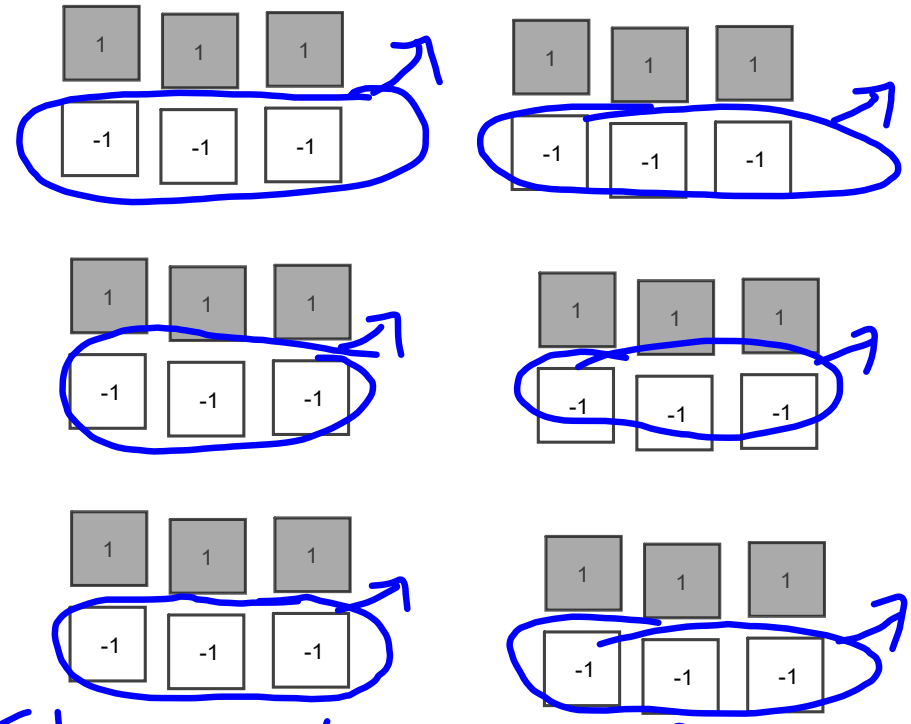
d) $(-27) \div (-3)$

-27 divided into groups of -3



$= +9$

10. a) $(+18) \div (-3)$



Take away 6 groups of -3

(-6)

$18 \div (-3) = -6$

b) $(+14) \div (+2) = +7$

Divide 14 into 2 groups of +7

c) $(-28) \div (+4)$

Divide 28 negatives into 4 equal groups. Each group will have -7

d) $(-30) \div (-6)$

Divide -30 into 5 groups of -6

$-30 \div (-6) = +5$

11. $(-65) \div (-5) = +13$

In 13 weeks Tyler will have withdraw $65

b) withdraw is a neg.

12 a) $(+26) \div (-2) = -13$

b) $(-32) \div (-8) = +4$

c) $(-1) \div (+1) = -1$

d) $(+42) \div (+7) = +6$

Explain how to divide into groups. -> or bell rules

13. a) $(-56) \div (-7)$
$= +8$

b) $(+40) \div (-5)$
$= -8$

c) $(-88) \div (+8)$
$= -11$

d) $(+28) \div (+2)$
$= +14$

14 a) $\frac{-18}{-2} = +9$

b) $\frac{+16}{-4} = -4$

c) $\frac{-18}{+6} = -3$

d) $\frac{0}{-9} = 0$

15. a) $(+24) \div (-12)$
$= -2$

b) $(-63) \div (+21)$
-3

c) $(+75) \div (+15)$
$= +5$

d) $(-99) \div (-11)$
$+9$

16. $(-63) \div (-3) = +21$
She removed candies for 21 days.

17. $(+72) \div (-9)$
I had \$72 and I withdraw \$9 each week. How long ago did I have \$72.

18. $-21 \div -1 = +21$
$-21 \div -3 = +7$
$-21 \div -7 = +3$
$-21 \div -21 = +1$

$-21 \div +1 = -21$
$-21 \div +3 = -7$
$-21 \div +7 = -3$
$-21 \div +21 = -1$

19, 20 a) $4 - 6(-2)$
$4 - (-12$
$4 + (+12)$
$+16$

b) $(-18) \div (-9) - 3$
$+2 + (-3)$
-1

c) $[7 - (-3)] \div 5$
$[7 + 3] \div 5$
$10 \div 5$
2

d) $4(-6) \div (-2)$
$-24 \div (-2)$
$+12$

21) a) $(-8) \div (-4) + 6(-3)$
$= (-2) + 6(-3)$
$= (-2) + (-18)$
$= -23$

21) b) $(-5) + (-12) \div (-3)$
$= (-5) + (+4)$
$= (-1)$

21) c) $18 + 3[10 \div (-5)]$
$= 18 + 3(-2)$
$= 18 + (-6)$
$= +12$

21) d) $(-16) \div 8[7-(-2)]$
$= (-16) \div 8[7+(+2)]$
$= (-16) \div 8[9]$
$= (-2) \quad [9]$
$= -18$

22)a) $\dfrac{3(-6) - 3}{-7}$
$= \dfrac{(-18) - 3}{-7}$
$= \dfrac{(-18) + (-3)}{-7}$
$= \dfrac{-21}{-7}$
$= +3$

b) $\dfrac{(-4) + [(-7) - (-2)]}{3}$
$\dfrac{(-4) + [(-7) + (+2)]}{3}$
$\dfrac{(-4) + [(-5)]}{3}$
$\dfrac{(-9)}{3}$
$= -3$

c) $\dfrac{20}{(-3) + (-14) \div 7}$
$= \dfrac{20}{(-3) + (-2)}$
$= \dfrac{20}{(-5)}$
$= -4$

24. Corey

$3 \times (+2) + 3 \times (-3) + 4 \times (+1)$

$+6 + (-9) + (+4)$

$+1$

Suzanne

$4 \times (+2) + 4 \times (-3) + 2 \times (+1)$

$+8 + (-12) + (+2)$

-2

Corey won since $+1 > -2$.

Class/Homework

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Test Tuesday

TOMORROW