○ = -

● = +

Warm Up Grade 8

1) Use rules

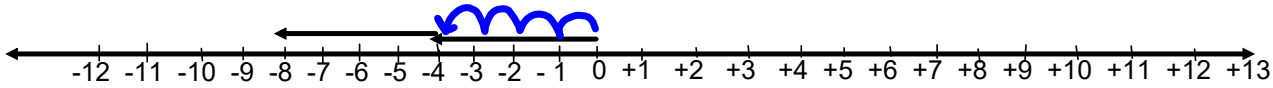
a) (-7) (-11) (+77) ①

b) (-56)÷(-2) (+28) ①

c) (+14) x (-2) (-28) ①

d) (+24)÷(-4) (-6) ①

2) Write a division equation for the following number line.



Multiply

(#arrows) x (arrow size) = (Step)

(+2) x (-4) = (-8)

Division (Reverse mult) ①

(-8) ÷ (-4) = (+2)

3) Find the product using the distributive property box method (show all work)

(-25) x (-31) = +775 ①

	30	1
20	20x30 = 600	20x1 = 20
5	5x30 = 150	5x1 = 5

②pts

600
150
20
5
775

①

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11) Rose 3º each hour for a total change of +12º.

(+12) ÷ (+3) = (+4)

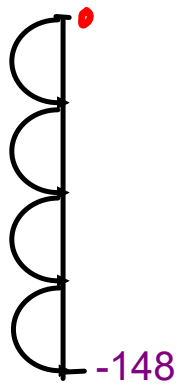
It took 4 hours for the change in temperature

12) Fell 4ºC each hour for a total change of -20ºC.

(-20)÷(-4) = (+5)

It took 5 hours for the temperature change

13)



Made 4 identical plunges in a row to a final depth of 148 below surface.

(-148) ÷ (+4) = (-37)

Page 81-82 homework solutions

14) (+45) ÷ (-5) = (-9)

Ted returned 5 books to the library and received $45 dollars back. How much had each book cost?

15) (-12) ÷(+6) = -2

The temperature dropped for 6 hours for a total change of -12°C. How much did it drop each hour?

16) 6 cm to the left each minute (-6)

a) (-36) ÷ (-6) = (+6)

Takes 6 minutes for the snail to reach -36

b) 6 cm to the left each minute (-6)

(+18) ÷ (-6) = (-3)

3 minutes ago the snail was at +18

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#1 a)

a) $(+9) \times (+10) = +90$

b) $(+6) \times (-11) = -66$

c) $(+96) \times (-16) = -6$

d) $(+39) \div (+3) = +13$

e) $(-8) \times (+6) = -48$

f) $-36 \div +9 = -4$

g) $(-44) \div (-4) = +11$

h) $(-5) \times (-1) = +5$

review

With word problems

When given a number and it is repeated and asked to find a total then (__) x (__) = (__)

When given a number and it shared or group and given a total then (__) ÷ (__) = (__)

For modelling

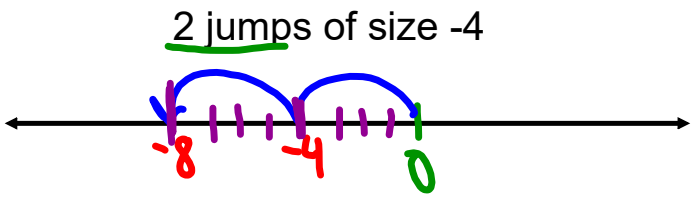
i) Tile multiplication
Only use zero pairs when (-) x # since it means remove groups of #

ii) Number line multiplication
Only use (+) x (#) = (Total stop).....start at zero and

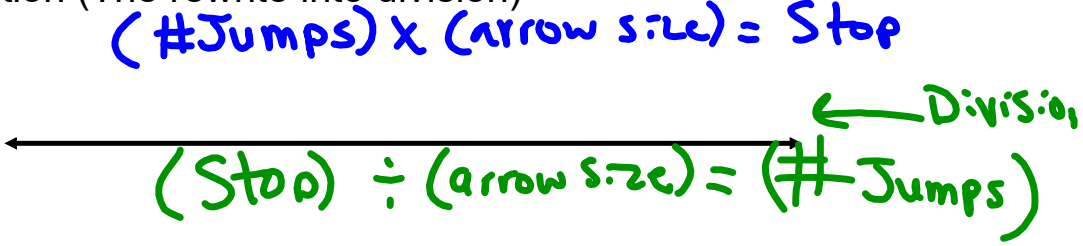
# of jumps

this is jump size with direction

Ex) (+2) x (-4) =



iii) To use a number line for division always think of the reverse of multiplication (The rewrite into division)



or

(Total length) ÷ (arrow size) = # of arrows

Class/Homework 8

Page 83 #1, #2, #6, #7, #8, #9a, #11

Box

MODEL ONLY 1A THEN USE RULES FOR REST PART IN # 1

Short warm up quiz on (Tomorrow)

x and ÷ rules

Number line x and ÷ (Write the equation for a given number line)

Box Method