

L4 "Converting Fractions to Decimals" pg. 11

VOC: Terminating decimal	repeating decimal
ends/stops	#keep going/forever w/ pattern
0.7	0.777...
	0. $\overline{777}$ ← Bar notation
	0. $\bar{7}$

A) Convert F → D

ex) $\frac{3}{5}$ in out → decimal

Step 1: Divide, add decimal to add zeros

$$5 \overline{) 3.0} \rightarrow 5 \overline{) 3.0} \begin{array}{r} 0.6 \\ -30 \\ \hline \end{array}$$

} looks like "30" now

0.6 = terminated decimal

$\frac{3}{5} = 0.6$ same!!

ex) $\frac{1}{6} \rightarrow$

$$6 \overline{) 1.0000} = \begin{array}{r} 0.166... \\ -6 \\ \hline 40 \\ -36 \\ \hline 40 \\ -36 \\ \hline 4 \end{array}$$

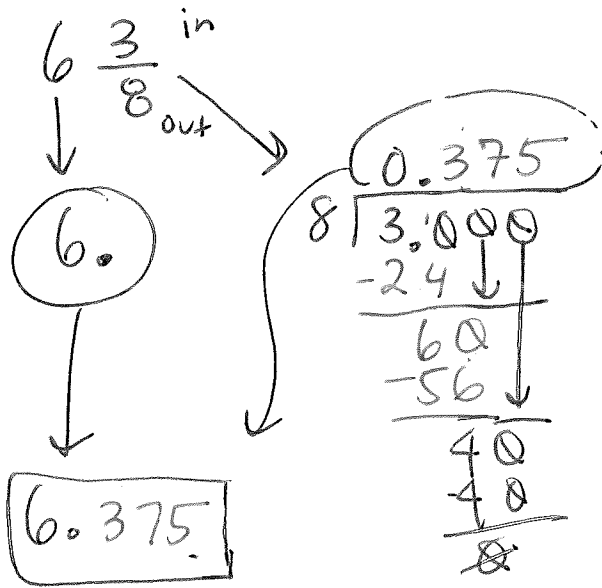
} going to repeat "6"

put bar over # that's repeating

$0.1\bar{6}$
repeating decimal



B) Convert mixed #s



Step 1: Bring whole # down.

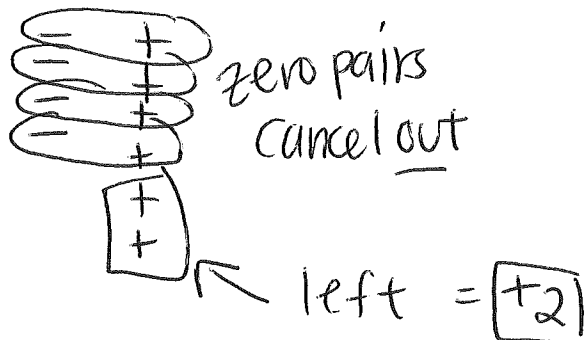
2: Divide fractional part

3: Combine whole # w/ fraction ÷ part

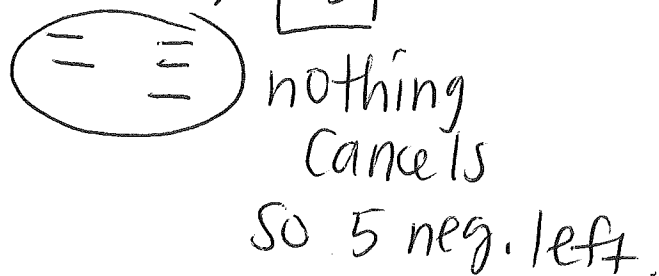
L2-1 "Adding Integers" pg. 15

A) + Integers

ex) $-4 + 6 = \boxed{+2}$

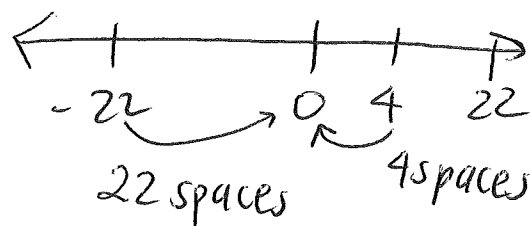
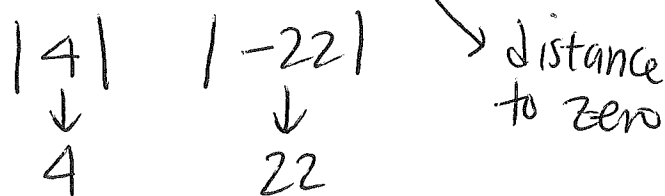


ex) $-2 + (-3) = \boxed{-5}$



ex) $4 + (-22) =$
22 4

step 1: write absolute value of each



$\textcircled{22} - 4$
18
 $\boxed{-18}$

step 2: signs different \rightarrow subtract
" " same \rightarrow ADD

3: Take sign of bigger absolute value.

22 is bigger than 4
and originally, it was
negative

L2-2 "Subtracting Integers" p.19
(part 1)

A) Subtract Integers

ex) $-10 - 5 =$

step 1: Add its opposite

$$-10 - 5$$

$$-10 + 5 =$$

step 2: Addition integer rule

Same \rightarrow add diff \rightarrow subtract
Sign

3: Bigger sign

$-10 + (-5)$

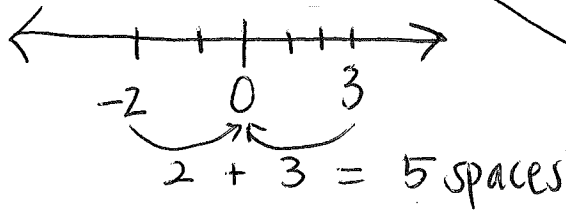
$10 + 5$

-15

Same

B) Distance (p.20)

ex) Distance of
 -2 & 3



Step 1: Subtract

2: Find Absolute Value of answer

$$-2 \text{ \& } 3$$

↓ ↓ ↓

$$|-2 - 3| =$$

$$|-2 + 3|$$

↓

$$|-5|$$

↓

$$5$$

ex) Distance of
 -30 & -2

$$-30 - (-2)$$

$$-30 + (+2)$$

↓

$$|-28|$$

↓

$$28$$

L3-1 Multiply Integers pg. 25

A) Integer Rule

ex) Chart Rules explained

Step 1: x
2: determine sign

x	2	1	0	-1	-2
2	4	2	0	-2	-4
1	2	1	0	-1	-2
0	0	0	0	0	0
-1	-2	-1	0	+1	+2
-2	-4	-2	0	+2	+4

Rule

$$(+)(+) = +$$

$$(+)(-) = -$$

$$(-)(+) = -$$

$$(-)(-) = +$$

Same signs (+)
diff (-)

ex) $-5(-7)$
 \uparrow
 $\boxed{-35}$

ex) $9 \cdot 5$
 \downarrow
 $\boxed{+45}$

ex) $-8(-8)$
 $\uparrow \quad \uparrow$
 $\boxed{+64}$

ex) $12(-4)$
 \uparrow
 $\boxed{-48}$

B) Counting negative signs

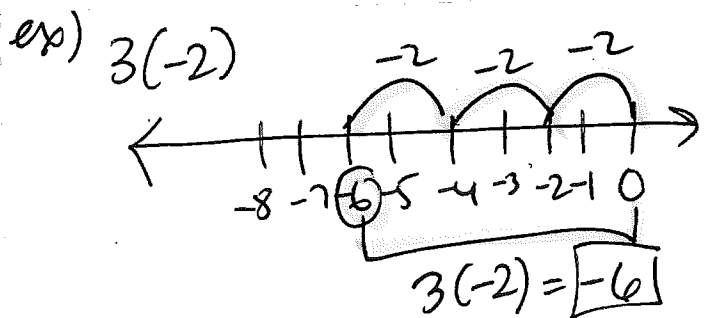
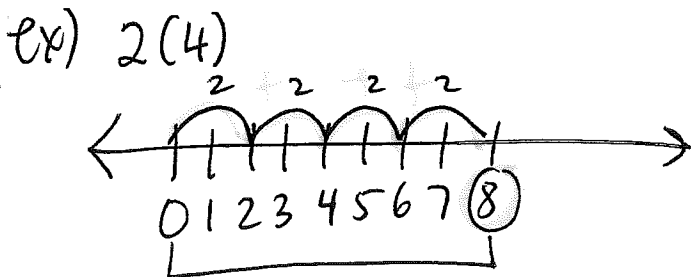
ex) $(-1)^2$
 \uparrow
 $(-1)(-1)$
 $\uparrow \quad \uparrow$
 $\boxed{1}$

ex) $(-1)^3$
 \uparrow
 $(-1)(-1)(-1)$
 $\uparrow \quad \uparrow \quad \uparrow$
 $\boxed{-1}$

ex) $(-1)^4$
 \uparrow
 $(-1)(-1)(-1)(-1)$
 $\uparrow \quad \uparrow \quad \uparrow \quad \uparrow$
 $\boxed{+1}$
 $= 4$

Rule
 even # = +
 odd # = -

how many = 2
 neg?



L3-2 Dividing Integers

ex) $\frac{+25}{+5} = +5$

A) \div Rule

Same as multiplying ex) $\frac{+25}{5}$

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

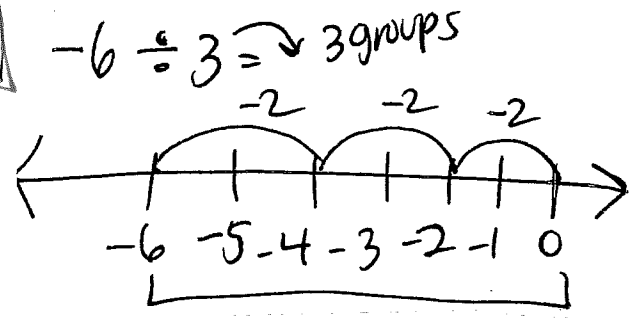
ex) $\frac{+25}{5} = +5$

same
ex) $\frac{-25}{5} = -5$

Step 1: \div
2: determine sign

ex) $\frac{-25}{5} = \frac{-25}{5} = -5$
neg in middle = all same quotient

ex) $\frac{25}{-5} = -5$



B) Average

ex) Temperature of pot (fell) from 72° to 36° F in 4 min.

Q) Average of change per minute?

$72 - 36 = 36^\circ$ drop \div by 4 min = $\frac{-36}{4} = -9^\circ \text{F/min}$

= 9°F drop per min.
OR -9°F/min same

ex) low temp. for 5 consecutive days
 $-8^\circ, -13, -4, -9, -16$

Q) average low?

$(-8) + (-13) + (-4) + (-9) + (-16) = -50$
 $\frac{-50}{5 \text{ days}} = -10^\circ \text{F}$ average