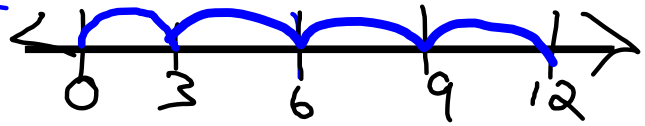
2.7. Multiplying + Dividing w/ $\mathbb{Z}$ (Integers)

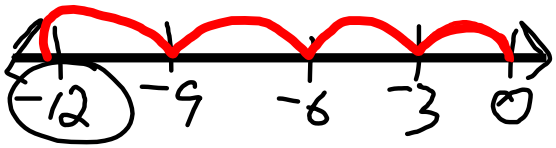
Nov. 15, 2006

Recall

$3 \cdot 4 = 12$



$-3 \cdot 4 = -12$



$-3 \cdot -4 = 12$

$-3 \cdot -4 \cdot -2 = -24$

$3 \cdot 4 \cdot 5 = 60$

$-(-(3 \cdot 4))$

$-(-(12))$

$-(-12)$

12

Da Rule! for Multi + Division

If there is an Odd # of Negatives:
Then the Result is Negative.

If there is an Even # of Negatives:
Then the Result is Positive.

ex1) $-8 \cdot 7 = -56$

ex2) $-9 \cdot -7 = 63$

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ex3) $8 \cdot 3 + 4 \cdot 5 = 24 + 20 = 44$

ex4) $= 8 \cdot 2 + -5 \cdot -2 = -16 + 10$

$= -6$

Division . . . .

$$\frac{2a}{2} = \frac{8}{2}$$

$$a = 4$$

$$\frac{-2a}{-2} = \frac{8}{-2}$$

$$a = -4$$

ex 5) $-24 \div -6 = 4$

ex 6) $-36 \div 6 = -6$

ex 7) $\frac{54}{-9} = -6$

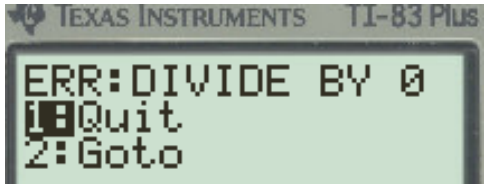
Zero!

$8 \cdot 0 = 0$

$0 \cdot 8 = 0$

$0 \div 8 = 0$

$8 \div 0 =$ undefined



O.T.L.

Pg 54: Exp: 1-16 (a)

PJ 55: Written: 1-55
(every other odd)
ie: 1, 5, 9, 13, 17, ...