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## Signed Number Operations Reference Sheet

## $\infty_{0}$ Adding Signed Numbers

$\star$ If the signs are the same, find the sum and keep the sign.
ex. $-6+-9=-15$

* If the signs are different, find the difference, and take the sign of the number with the larger absolute value

$$
\text { ex. }-13+6=-7
$$

## $\therefore$ Subtracting Signed Numbers

$\star$ The "KFC" Rule: Keep, Flip, Change tells you to keep the sign of the first number, flip the subtraction to addition, and change the sign of the second number. You can then apply the rules for addition.
ex. -14-9
K F C
$-14+-9=-23$
*Another Hint: Remember, taking away a negative influence is just as good as adding a positive influence!

$$
\text { ex. }-10-(-4)=-10+4=-6
$$

## $\infty$ Multiplying Signed Numbers

* positive * positive = positive
* positive * negative = negative
ex. $-9 * 8=-72$
$\infty$ Dividing Signed Numbers
* positive : positive = positive
* positive $\div$ negative $=$ negative
ex. $-8 \div-2=4$
* negative * negative = positive
* negative * positive = negative
$\star$ negative $\div$ negative $=$ positive
$\star$ negative $\div$ positive $=$ negative


## Optional Extra Practice:

1) $-16+9$
2) $18 *(-3)$
3) $8+(-20)$
4) $-20-3$
5) $-9-(-10)$
6) $-64 \div(-8)$
7) $99 \div-3$
8) $-11^{*}-11$
9) create a subtraction problem for which the answer is -7

## Optional Extra Practice Solutions:

1. -7
2. -54
3. -12
4. -23
5. 1
6. 8
7. -33
8. 121
9. will vary (for example, $-3-4=-7$ or $1-8=-7$, etc)
