## Adding Real Numbers:

| Positive + Positive $=$ Positive | $5+3=8$ |
| :--- | :---: |
| Negative + Negative $=$ Negative | $(-6)+(-3)=-9$ |
| Sum of a negative and a positive number: | $(-6)+3=-3$ |
| find the difference between the two numbers, | $9+(-12)=-3$ |
| and keep the sign of the larger number | $(-5)+7=2$ |
|  | $4+(-2)=2$ |

## Subtracting Real Numbers:

## Rule: make it an addition problem!

1. change the subtraction sign (-) to an addition sign (+)
2. change the sign of the next number to its opposite
3. now that it is an addition problem, follow the addition rules!

$$
\begin{gathered}
(-8)-3=-8+(-3)=-11 \\
4-(-3)=4+3=7 \\
(-7)-(-5)=(-7)+5=-2 \\
(-5)-(-7)=(-5)+7=2
\end{gathered}
$$

## Multiplying Real Numbers:

| Positive $\times$ Positive $=$ Positive | $3 \times 4=12$ |
| :--- | :---: |
| Negative $\times$ Negative $=$ Positive | $(-3) \times(-5)=15$ |
|  | $(-3) \times 2=-6$ |
| When the signs are different $=$ Negative | $3 \times(-2)=-6$ |

## Dividing Real Numbers:

| Positive $\div$ Positive $=$ Positive | $18 \div 3=6$ |
| :--- | :---: |
| Negative $\div$ Negative $=$ Positive | $(-18) \div(-3)=6$ |
|  | $(-18) \div 3=-6$ |
| When the signs are different $=$ Negative | $18 \div(-3)=-6$ |

