| Additive Identity | $a+0=a$ |
| :--- | :---: |
| Additive Inverse | $a+(-a)=0$ |
| Commutative of Addition | $a+b=b+a$ |
| Associative of Multiplication | $(a \cdot b) \cdot c=a \cdot(b \cdot c)$ |
| Distributive Law | $a(b+c)=a b+a c$ |
| Definition of Division | $\frac{a}{b}=a \cdot \frac{1}{b}$ |


| Associative of Addition | $(a+b)+c=a+(b+c)$ |
| :--- | :---: |
| Definition of Subtraction | $a-b=a+(-b)$ |
| Multiplicative Identity | $a \cdot 1=a$ |
| Multiplicative Inverse | $a \cdot \frac{1}{a}=1, a \neq 0$ |
| Multiplication Times 0 | $a \cdot 0=0$ |
| Commutative of Multiplication | $a \cdot b=b \cdot a$ |



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