|  |  |
| --- | --- |
| Identity– who you areInvert – invert(to turn upside down)Commute – moveAssociate – group togetherReflect – reflection of oneselfSymmetric – exact same if foldedTrans – acrossSub – replace | $$a∙\frac{1}{a}=1$$example:$$6∙\frac{1}{6}=1$$ |
| $$a+0=a$$example:$$2+0=2$$ | $$a+ -a=0$$example:$$-47+ 47=0$$ |
| $$a∙1=a$$example:$$3∙1=3$$ | $$a+b=b+a$$example:$$50+15=15+50$$ |
| $$a∙0=0$$example:$$10∙0=0$$ | $$a∙b=b∙a$$example:$$25∙2=2∙25$$ |
| Multiplication Inverse Property |  |  | Properties by Sharrerp1/2Identity– Invert– Commute – Associate –Reflect –Symmetric – Trans –Sub – |
| AdditiveInverseProperty |  |  | Additive Identity Property |
| Communicative Property of Addition |  |  | Multiplication Identity Property |
| Communicative Property of Multiplication |  |  | MultiplicationPropertyofZero |
| R 1S 2T 3equal signs | $$a=a$$example:$$7=7$$ |
| $$\left(a+b\right)+c=a+(b+c)$$example:$$\left(2+3\right)+6=2+(3+6)$$ | $$If a=b$$$$then b=a$$example: $$If 2+x=5$$$$then 5=2+x$$ |
| $$\left(ab\right)c=a(bc)$$example:$$\left(5∙t\right)2=5(t∙2)$$ | $$If a=b$$$$and b=c$$$$then a=c$$example: $$If 2+3=5$$$$and 5=7-2$$$$then 2+3=7-2$$ |
| $$a\left(b+c\right)=ab+ac$$example:$$4\left(x-3\right)=4x-4∙3$$ | If $a=b$, then$ a$ can replace $b$ in any equationexample:$$x+\left(2+6\right)= x+8$$ |
| Reflexive Property of Equality |  |  | Properties by Sharrerp2/2Jackson5 Properties song |
| Symmetric Property of Equality |  |  | Associative Property of Addition |
| Transitive Property of Equality |  |  | Associative Property of Multiplication |
| Substitution Property of Equality |  |  | Distributive Property |