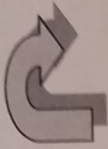
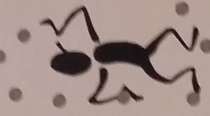

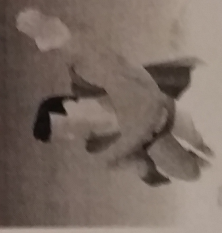


Name: _____

Properties of Addition and Multiplication

Property Name	Phrase Clues	Picture Clues	Example +	Example X
Commutative Property <i>Commutate means to move → moving the factors or</i>	"Turn Around Facts"		Addition $3+4 = 4+3$ $3 \times 4 = 4 \times 3$	Multiplication $\frac{3}{8} \times \frac{4}{9} = \frac{4}{9} \times \frac{3}{8}$
Associative Property <i>Associate w/ your GROUP!</i>	Order Doesn't Matter <u>Grouping</u>		$3 + (4 + 6) =$ $3 + 10 = 13$ $(3 + 4) + 6 = 13$	$3(6 \times 4) = 72$ $3 \cdot 24 = 72$ $(3 \times 6) \cdot 4 = 72$ $18 \times 4 = 72$ <i>Same</i>
Identity Property <i>Keep your identity!</i>	Keep the Other Number the Same		$3 + 0 = 3$ <i>"0" keeps identity</i>	$3 \times 1 = 3$ <i>"1" keeps identity</i>
Zero Property of Multiplication	Zero is my Hero! <i>0 can knock out any product</i>			$3 \times 0 = 0$ $10, 682 \times 0 = 0$ <i>No matter the size!!</i>