

# DRAFT Subtraction Framework

		Traditional Algorithm	Partial Differences
Additive	Algorithms	$\begin{array}{r} 3 \ 15 \\ 45 \\ -28 \\ \hline 17 \end{array}$	$\begin{array}{r} 45 \\ -28 \\ \hline 20 \\ -3 \\ \hline 17 \end{array}$
	Make it friendly	$45 - 28 = 47 - 30 = 17$	
Early Additive	Break apart	$\begin{array}{r} 30 \ 15 \\ 45 = 40 \ 5 \\ -28 = 20 \ 8 \\ \hline 10 + 7 = 17 \end{array}$	Start with the smaller number
	Break apart $45 - 28 =$	$\begin{array}{r} 15 \\ 45 = 40 \ 5 \\ -28 = 20 \ 8 \\ \hline -20 \\ 10 + 7 = 17 \end{array}$	Start with the bigger number
		$\begin{array}{r} 10 \\ 40 - 20 = 20 \\ 10 + 5 = 15 \\ 15 - 8 = 7 \end{array}$	
Transitional (Number lines)	Jumps (subtracting down) by groups of 10s (100s, 1000s,...) considering the place value of the numbers being subtracted...		
Early transitional	Number lines jumps (subtracting down) by 10s (100s, 1000s,...)		
	Hundreds chart or number line counting back by ones and tens		
	Sticks and dots Base ten blocks		
		Use actual base ten blocks	
Counting	Counting backwards by ones using a hundreds chart or number line		
Early Counting	Counting backwards by ones using objects	$45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17$	