

Why do we need to memorize and master the lower levels of math?

By requiring the lower levels of math to be mastered with speed, Gideon prepares the student to solve complex problems quickly and easily. If any one of these steps takes a student longer than a few seconds, doing many problems for practice would become burdensome. Memorizing basic facts is crucial for higher math levels.

PROBLEM	SKILL NEEDED	GIDEON BKLT
$2\frac{7}{12} + 5\frac{11}{16} =$	Find the LCM by finding multiples of 12 & 16. $12 \times 4 = 48, 16 \times 3 = 48$ Need quick multiplication skills	F 9 HMD 9 VMD 1
$2\frac{28}{48} + 5\frac{33}{48} =$	Convert each piece into equivalent fractions. $7 \times 4 = 28; 11 \times 3 = 33$ Need quick multiplication skills	F 1 HMD 3
$7\frac{61}{48} =$	Must know to add only numerators: $28 + 33 = 61$ Need quick higher addition skills	F 10 HA 10 VAS 2
$8\frac{13}{48}$	Divide 61 by 48 to get 1 R 13 using regrouping subtraction skills. Must know 1 is a whole number to be added with the 7 others and 13 are the remaining fraction pieces.	VMD 8 HS 10 VAS 7 F 7
Final answer? Yes!	Also need to check 13 & 48 for any common factors for reducing.	HMD 1-10

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PROBLEM	SKILL NEEDED	GIDEON BKLT
$\frac{1}{2}(x-4)-6.5x > -50$	Know the order of operations: start with multiplying.	PA 12
$\frac{1}{2}x-2-6.5x > -50$	Use distributive property with multiplying & reducing fractions.	ALG 3 F 2 & 16
$\frac{1}{2}x-6.5x > -48$	Combine like terms by moving the 2. Combine negative numbers using subtraction.	ALG 4 PA 15 HS 2
$.5x-6.5x > -48$	Convert fraction into decimal using division & multiplication.	PA 1 HMD 1-2
$-6x > -48$	Combine like terms and negative decimals using subtraction.	ALG 3 PA 19 HS 2
$x < 8$	Divide by a negative number inside an inequality (flip sign).	ALG 12 PA 16 HMD 6