

Detective Duck's Gumshoe Preparatory Course



Many MMC members have asked me how they can become better math detectives. To become an ace sleuth like me, you need lots of training. You can start right now by completing the beginning course in detective work below. Good luck young gumshoes!

ASSIGNMENT 1: Identify the value for "A" in each problem below.



$\begin{array}{r} 5A \\ + 43 \\ \hline 99 \end{array}$ <p>A = <u>6</u></p>	$\begin{array}{r} 6A3 \\ + 291 \\ \hline 974 \end{array}$ <p>A = <u> </u></p>	$\begin{array}{r} 951 \\ + 3A5 \\ \hline 1,326 \end{array}$ <p>A = <u> </u></p>	$\begin{array}{r} 1,988 \\ + 3,667 \\ \hline A,6AA \end{array}$ <p>A = <u> </u></p>	$\begin{array}{r} A,4A9 \\ + 1,A24 \\ \hline 4,76A \end{array}$ <p>A = <u> </u></p>
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ASSIGNMENT 2: Are you up for a challenge? See if you can identify "A" and "B" in each problem below.



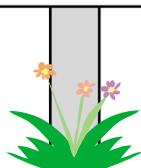
$\begin{array}{r} 5A \\ + 25 \\ \hline B2 \end{array}$ <p>A = <u>7</u> B = <u>8</u></p>	$\begin{array}{r} A46 \\ + 352 \\ \hline 4B8 \end{array}$ <p>A = <u> </u> B = <u> </u></p>	$\begin{array}{r} A53 \\ + 698 \\ \hline B,45B \end{array}$ <p>A = <u> </u> B = <u> </u></p>	$\begin{array}{r} A,BA1 \\ + 5,6B2 \\ \hline 9,97B \end{array}$ <p>A = <u> </u> B = <u> </u></p>	$\begin{array}{r} A,4BB \\ + B20 \\ \hline A,7AB \end{array}$ <p>A = <u> </u> B = <u> </u></p>
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ASSIGNMENT 3: Do you think you're ready for some advanced detective work? Find the value of each letter in the equations below.



HINTS

- *Look at the whole problem for clues.
- *Determine the largest and smallest possible values for each letter.
- *List the possible values for each letter. (Remember that regrouping may be involved.)
- *Use the process of elimination to narrow your list of possible values.



$\begin{array}{r} ON \\ ON \\ ON \\ + ON \\ \hline GO \end{array}$ <p>O = <u> </u> N = <u> </u> G = <u> </u></p>	$\begin{array}{r} I \\ I \\ + I \\ \hline HI \end{array}$ <p>I = <u> </u> H = <u> </u></p>	$\begin{array}{r} A,BAB \\ + C,BAA \\ \hline 7,3CC \end{array}$ <p>A = <u> </u> B = <u> </u> C = <u> </u></p>
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