

4.1 Two step algebra questions

$2(3) + 2 =$ in this math problem we need to multiply first, there is only one way.

We know it equals 8, but if it is in an algebra question

$2(m) + 2 = 8$ and we need to solve, we have options

subtract 2 first	divide by 2 first
$\begin{array}{r} 2(m) + 2 = 8 \\ -2 \quad -2 \\ \hline \end{array}$	$\frac{2(m) + 2}{2} = \frac{8}{2}$ it can be written this way, but students forget to divide everything by 2
	Better way (you always want to learn the best way)
	$\frac{2(m)}{2} + \frac{2}{2} = \frac{8}{2}$ put everything over 2 remember $(2/2)$ does not cancel = 1
now divide	now subtract
$\frac{2(m)}{2} = \frac{6}{2}$	$\begin{array}{r} (m) + 1 = 4 \\ -1 \quad -1 \\ \hline \end{array}$
$(m) = 3$	$(m) = 3$

You can solve either way but **NEED** to show work properly.

Example 2

$$2(m) + 1 = 7$$

subtract 1 first	divide everything by 2 first
$\begin{array}{r} 2(m) + 1 = 7 \\ -1 \quad -1 \\ \hline \end{array}$	$\frac{2(m) + 1}{2} = \frac{7}{2}$
now divide	now subtract
$\frac{2(m)}{2} = \frac{6}{2}$	$\begin{array}{r} (m) + \frac{1}{2} = 3\frac{1}{2} \\ -\frac{1}{2} \quad -\frac{1}{2} \\ \hline \end{array}$
$(m) = 3$	$(m) = 3$

You can solve still solve either way, but the second way adds fractions to the question, which makes it more complicated and the chance of an error greater.

Now it's your turn, solve the 2 questions by both methods
first subtract, the second way divide first

$$3p + 6 = -18$$

$$2n + 3 = 9$$