

SOLVING EQUATIONS (top layer)

Are there brackets?	YES
() []	YES
Do you have <u>Like Terms</u> ? Two variables or two Constants on the same side of the equal sign?	YES
Are there <u>variables</u> on both sides of the equal sign?	YES
Is there a <u>constant on the same side</u> of the equal sign as the variable? <i># by itself</i>	YES
Is there a <u>coefficient</u> other than 1 attached to the variable? <i># before variable/letter</i>	YES
Check your solution.	YES

Inverse Operations

operations that undo each other

$+$	$-$	\times	\div
$\cancel{+}$	$\cancel{-}$	$\cancel{\times}$	$\cancel{\div}$
x^2	\sqrt{x}		

Remove brackets through distributive property. - multiply values outside bracket by <u>EVERYTHING</u> inside	YES
Combine like terms (ch.5)	YES
Remove the <u>smaller</u> variable by adding/subtracting the coefficient	YES
Remove constant on some side through addition/ subtraction.	YES
Remove coefficient through multiplication/division. <i>*Always multiply by denominator</i> $\begin{array}{l} 3x = 27 \\ \frac{3}{3} \quad \frac{3}{3} \\ x = 9 \end{array} \quad \begin{array}{l} 4x = 24 \\ \frac{4}{4} \quad \frac{4}{4} \\ x = 8 \end{array}$	YES
Substitute answer into the ORIGINAL problem. If both sides are the same, you are correct.	YES

Inverse Operations

operations that undo each other

SOLVING EQUATIONS (top layer)

Are there
() []

Do you have
two variables
on the same side

Are there
the equal sign

Is there a
variable on
one side of the eqn

b

Is there a
variable attached
to a number

be

Check your work

YES

$$3x + 2(3x - 4) = 24 + (-5) + 6x$$

$$\underline{3x + 6x - 8} = \underline{24 + (-5) + 6x}$$

$$\begin{array}{r} 9x - 8 = 19 \\ -6x \end{array}$$

$$\underline{3x - 8 = 19}$$

$$\begin{array}{r} 8 \\ 3x = 27 \end{array}$$

$$x = 9$$

