

SOLVING EQUATIONS: Find the mystery # x

STEPS to Solving Equations:

- 1) Circle the variable & draw the balance line.
- 2) use inverse operations to solve.
- 3) CHECK your ANSWER!
- 4) Graph the answer

Inverse Operations:

Opposite

$$\bullet \rightarrow \div$$

$$\div \rightarrow \bullet$$

$$- \rightarrow +$$

$$+ \rightarrow -$$

Solve the following equations:

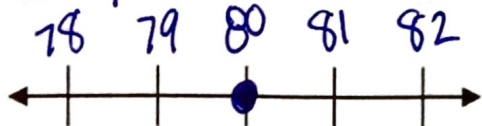
1) $x + 42 = 79$ $x + 42 = 79$
 $\quad -42 \quad -42$ $37 + 42 = 79$
 \hline \checkmark
 $x = 37$



2) $85 = y + 19$ $85 = 66 + 19$
 $\quad -19 \quad -19$ $85 = 85$
 \hline \checkmark
 $66 = y$



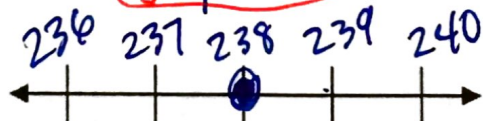
3) $62 = r - 18$ $62 = 80 - 18$
 $\quad +18 \quad +18$ \checkmark
 \hline \checkmark
 $80 = r$



4) $704 = j - 112$ $704 = 816 - 112$
 $\quad +112 \quad +112$ \checkmark
 \hline \checkmark
 $816 = j$



5) $y - 60 = 298$ $238 - (-60) = 298$
 $\quad -60 \quad -60$ \checkmark
 \hline \checkmark
 $y = 238$



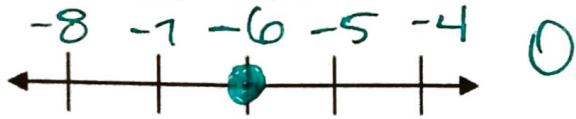
6) $h + (-801) = 93$ $894 + (-801)$
 $\quad +801 \quad +801$ \checkmark
 \hline \checkmark
 $h = 894$



7) $-9 + g = -15$ $-9 + -6 = -15$

$g - 9 = -15$
 $+9$ $+9$

$g = -6$



8) $20 = -17 + b$



9) $65 = 5w$

$65 = 5 \cdot 13$ ✓

$65 = 5w$
 $\frac{65}{5} = \frac{5w}{5}$

$13 = w$



10) $-11r = 77$



11) $\frac{n}{-4} = 7 \cdot -4$ $\frac{-28}{-4} = 7$ ✓

$n = -28$



12) $\frac{d}{-3} = -12$



13) $\frac{a}{5} = -12$



14) $-8c = -64$ $-8 \cdot 8 = -64$ ✓

$-8c = -64$
 $\frac{-8c}{-8} = \frac{-64}{-8}$

$c = 8$



15) $\frac{g}{-9} = 3$

