

\* Solve  $a^2 + a = 12$  \*

$$\begin{array}{r} a^2 + a = 12 \\ -12 \quad -12 \\ \hline \end{array}$$

① set = 0

$$1a^2 + a - 12 = 0$$

② factor

$$(a+4)(a-3) = 0$$

worth zero      worth zero

③ set factors = 0

$$a+4=0$$
$$\begin{array}{r} -4 \quad -4 \\ \hline \end{array}$$

$$a = -4$$

OR  $a-3=0$

$$\begin{array}{r} +3 \quad +3 \\ \hline \end{array}$$

$$a = 3$$

$$(-4)^2 + -4 = 12$$
$$\begin{array}{r} 16 + -4 = 12 \\ \hline 12 = 12 \\ \checkmark \end{array}$$

$$3^2 + 3 = 12$$
$$\begin{array}{r} 9 + 3 = 12 \\ \hline 12 = 12 \\ \checkmark \end{array}$$