

NAME _____

PRINCIPLE Here is a list of all possible legal Goal shapes.

Goal	Meaning	Goal	Meaning
$\begin{array}{ c } \hline A \\ \hline \end{array}$	A	$\begin{array}{ c } \hline A \\ \hline B \\ \hline C \\ \hline \end{array}$	$A \times B \times C$
$\begin{array}{ c c } \hline A & B \\ \hline \end{array}$	$A + B$	$\begin{array}{ c } \hline A \\ \hline B & C \\ \hline \end{array}$	$(B + C) \times A$ or $AB + AC$
$\begin{array}{ c c c } \hline A & B & C \\ \hline \end{array}$	$A + B + C$	$\begin{array}{ c } \hline A \\ \hline B & C \\ \hline \end{array}$	$(A \times B) + C$
$\begin{array}{ c } \hline A \\ \hline B \\ \hline \end{array}$	$A \times B$		

SUMMARY OF RULES FOR DIGITS IN GOALS

1. If cubes are side by side, **add** the numbers on the cubes.
2. If cubes are one above the other, **multiply** the numbers on the cubes.
3. The **negative** of a number is indicated by placing the cube **upside down**.

EXAMPLES

Goal	Value	Goal	Value	Goal	Value
$\begin{array}{ c c } \hline 2 & 3 \\ \hline \end{array}$	$2 + 3 = 5$	$\begin{array}{ c } \hline 2 \\ \hline 3 \\ \hline \end{array}$	$2 \times 3 = 6$	$\begin{array}{ c } \hline 2 \\ \hline 2 \\ \hline 2 \\ \hline \end{array}$	$2 \times 2 \times 2 = 8$
$\begin{array}{ c c } \hline 5 & \overline{1} \\ \hline \end{array}$	$5 + (-1) =$ $5 - 1 = 4$	$\begin{array}{ c } \hline 2 \\ \hline 3 & 1 \\ \hline \end{array}$	$(2 \times 3) + 1 =$ $6 + 1 = 7$	$\begin{array}{ c } \hline 3 \\ \hline 2 & \overline{1} \\ \hline \end{array}$	$(3 \times 2) + (-1) =$ $6 - 1 = 5$
$\begin{array}{ c } \hline 2 \\ \hline 1 & 4 \\ \hline \end{array}$	$(1 + 4) \times 2 =$ $5 \times 2 = 10$	$\begin{array}{ c c c } \hline 2 & \overline{2} & 1 \\ \hline \end{array}$	$2 + (-2) + 1 =$ $2 - 2 + 1 = 1$	$\begin{array}{ c } \hline 2 \\ \hline 3 & \overline{2} \\ \hline \end{array}$	$(3 - 2) \times 2 =$ $1 \times 2 = 2$

EXERCISES

Give the value of each Goal.

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|---|--|--|
| 1. $\begin{array}{ c c } \hline 2 & 4 \\ \hline \end{array}$ _____ | 2. $\begin{array}{ c c } \hline 1 & 3 \\ \hline \end{array}$ _____ | 3. $\begin{array}{ c c } \hline 4 & \overline{2} \\ \hline \end{array}$ _____ |
| 4. $\begin{array}{ c } \hline 4 \\ \hline 2 \\ \hline \end{array}$ _____ | 5. $\begin{array}{ c } \hline 5 \\ \hline 2 \\ \hline \end{array}$ _____ | 6. $\begin{array}{ c } \hline 3 \\ \hline 2 & 2 \\ \hline \end{array}$ _____ |
| 7. $\begin{array}{ c } \hline 2 \\ \hline 2 & \text{£} \\ \hline \end{array}$ _____ | 7. $\begin{array}{ c } \hline 2 \\ \hline 3 & 2 \\ \hline \end{array}$ _____ | 9. $\begin{array}{ c } \hline 2 \\ \hline 4 & 1 \\ \hline \end{array}$ _____ |
| 10. $\begin{array}{ c c c } \hline 3 & 5 & 1 \\ \hline \end{array}$ _____ | 11. $\begin{array}{ c c } \hline 3 & \text{£} \\ \hline \end{array}$ _____ | 12. $\begin{array}{ c c } \hline \overline{2} & 5 \\ \hline \end{array}$ _____ |
| 13. $\begin{array}{ c } \hline 3 \\ \hline 2 \\ \hline 2 \\ \hline \end{array}$ _____ | 14. $\begin{array}{ c c c } \hline 5 & \overline{2} & 1 \\ \hline \end{array}$ _____ | 15. $\begin{array}{ c c c } \hline 3 & \overline{4} & 5 \\ \hline \end{array}$ _____ |