## Velika logična pošast



Število pik na sliki moramo predstaviti v obliki $a \times b+c$. Število $a \times b+c$ moramo predstaviti s sliko.


| $2 \times 4$ |  |
| :---: | :---: |
| $3 \times 2+2$ |  |
| $4 \times 2$ |  |
| $5 \times 1+3$ |  |
| $6 \times 1+2$ |  |
| $7 \times 1+1$ |  |
| $8 \times 1$ |  |


| $4 \times 2$ |  |
| :---: | :--- |
| $2 \times 3+2$ |  |
| $2 \times 4$ |  |
| $1 \times 5+3$ |  |
| $1 \times 6+2$ |  |
| $1 \times 7+1$ |  |
| $1 \times 8$ |  |



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|  | $4 \times 2+1$ |  |
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|  | $3 \times 3$ |  |
|  | $2 \times 4+1$ |  |
| $2 \times 4+1$ |  |  |
| $3 \times 3$ | $1 \times 5+4$ |  |
| $4 \times 2+1$ | $1 \times 6+3$ |  |
| $5 \times 1+4$ |  |  |
| $6 \times 1+3$ | $1 \times 7+2$ |  |
| $7 \times 1+2$ |  |  |
| $8 \times 1+1$ | $1 \times 8+1$ |  |
| $9 \times 1$ |  |  |
|  | $1 \times 9$ |  |




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| \%: $: 0: 0$ |
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| $\square \square \square \square \square \square \square \square \square$ |
| $\cdots \square$ |
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Rešitve:

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| $3 \times 2+2$ | $\bullet \bullet$ $\bullet$ $\bullet$ $\bullet$ <br> $\bullet$ $\bullet$ $\bullet$ $\bullet$ |
| $4 \times 2$ | $\bullet \bullet$ $\bullet$ $\bullet$  <br> $\bullet$ $\bullet$ $\bullet$ $\bullet$ |
| $5 \times 1+3$ |  |
| $6 \times 1+2$ |  |
| $7 \times 1+1$ |  |
| $8 \times 1$ |  |


| $4 \times 2$ | $\bullet$ $:$ $:$ 0 <br> $\bullet$ 0 0  |
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| $2 \times 3+2$ | (0 0 0 <br> $\bullet$ 0 $\bullet$ <br> 0 0 0 |
| $2 \times 4$ | (1)\|l|0 0 <br> 0 0 <br> 0 0 <br> 0 0 |
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| $1 \times 6+2$ | $\underline{0}$ |
| $1 \times 7+1$ |  |
| $1 \times 8$ | [ |


|  |  | $4 \times 2+1$ |  |
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|  |  | $3 \times 3$ |  |
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| $2 \times 4+1$ |  | $1 \times 5+4$ | [ $\begin{array}{r}0 \\ \vdots \\ \vdots \\ \vdots \\ 0 \\ 0 \\ 0\end{array}$ |
| $3 \times 3$ | $\left[\begin{array}{l\|l\|l\|}0 & 0 & 0 \\ 0 & 0 & 0 \\ \hline\end{array}\right.$ |  |  |
| $4 \times 2+1$ |  | $1 \times 6+3$ | 员 |
| $5 \times 1+4$ |  |  |  |
| $6 \times 1+3$ |  | $1 \times 7+2$ | $\left[\begin{array}{l} ! \\ ! \\ ! \\ ! \\ ! \end{array}\right.$ |
| $7 \times 1+2$ |  |  |  |
| $8 \times 1+1$ |  | $1 \times 8+1$ | [ |
| $9 \times 1$ | $\bullet \cdot$ $\bullet$ $\bullet$ $\bullet$ $\bullet$ $\bullet$ $\bullet$ $\bullet$ |  |  |
|  |  | $1 \times 9$ | [ |


|  |  | $5 \times 2$ | : $: 10: 1: 10$ |
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|  |  | $3 \times 3+1$ | $\cdots:: 10$ |
|  |  | $2 \times 4+2$ |  |
| $2 \times 5$ | $\bullet$ $\bullet$ $\bullet$ $\bullet$ <br> $\bullet$ $\bullet$ $\bullet$ $\bullet$ | $2 \times 5$ | $\left[\begin{array}{l}0 \\ \vdots \\ \vdots \\ \vdots\end{array}\right.$ |
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| $4 \times 2+2$ | 0 0 0 0  <br> $\cdot$ $\cdot$ 0 0 0 |  |  |
| $5 \times 2$ |  | $1 \times 7+3$ |  |
| $6 \times 1+4$ |  |  |  |
| $7 \times 1+3$ |  | $1 \times 8+2$ |  |
| $8 \times 1+2$ |  |  |  |
| $9 \times 1+1$ |  | $1 \times 9+1$ |  |
| $10 \times 1$ |  |  |  |
|  |  | $1 \times 10$ | [ $\begin{array}{r}\text { ! } \\ \vdots \\ \vdots \\ \vdots \\ \vdots \\ \vdots \\ 0\end{array}$ |


| $2 \times 5+1$ | $\bullet \cdot .!0^{\circ} \cdot{ }^{\circ}$ |
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| $4 \times 2+3$ | . $0.0 \mid$ O. $0_{0}$ : |
| $5 \times 2+1$ |  |
| $6 \times 1+5$ | $\bullet \cdot\|\cdot\| \cdot\|\cdot\| \cdot \bullet \cdot{ }^{\circ}$ |
| $7 \times 1+4$ |  |
| $8 \times 1+3$ | $\bullet \cdot\\|\cdot\\| \cdot \\| \cdot \mid$ |
| $9 \times 1+2$ |  |
| $10 \times 1+1$ | $\bullet \\| \cdot \bullet \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\|$ |
| $11 \times 1$ | $\bullet \cdot \bullet \cdot \bullet \cdot \bullet \cdot \cdot \bullet \cdot \bullet \cdot \bullet$ |


| $2 \times 6$ |  |
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| $3 \times 4$ |  |
| $4 \times 3$ |  |
| $5 \times 2+2$ | $\bullet$ 0 0 0 0  <br> $\cdot$ $\cdot$ $\cdot$ 0 $\cdot$ 0 <br> 0      |
| $6 \times 2$ |  |
| $7 \times 1+5$ |  |
| $8 \times 1+4$ |  |
| $9 \times 1+3$ |  |
| $10 \times 1+2$ |  |
| $11 \times 1+1$ |  |
| $12 \times 1$ |  |


| $2 \times 6+1$ | $\cdots$ $\cdot$ $\cdots$  <br> $\cdots$ . . . |
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| $3 \times 4+1$ |  |
| $4 \times 3+1$ |  |
| $5 \times 2+3$ |  |
| $6 \times 2+1$ | .0.0.0.0.0.0. |
| $7 \times 1+6$ |  |
| $8 \times 1+5$ |  |
| $9 \times 1+4$ |  |
| $10 \times 1+3$ |  |
| $11 \times 1+2$ | $\bullet \cdot \\| \cdot \square \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\|$ |
| 12×1+1 |  |
| $13 \times 1$ |  |


| $2 \times 7$ | $\cdots$ |
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| $3 \times 4+2$ |  |
| $4 \times 3+2$ |  |
| $5 \times 2+4$ |  |
| $6 \times 2+2$ |  |
| $7 \times 2$ |  |
| $8 \times 1+6$ |  |
| $9 \times 1+5$ | $\bullet \cdot\\|\cdot\\| \cdot\\|\cdot \bullet \cdot\\| \cdot \bullet_{0}^{\bullet}$ |
| $10 \times 1+4$ |  |
| $11 \times 1+3$ | $\bullet \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\|: ~$ |
| $12 \times 1+2$ |  |
| $13 \times 1+1$ |  |
| $14 \times 1$ |  |


| $2 \times 7+1$ |  |
| :---: | :---: |
| $3 \times 5$ | $\because \cdot \square \cdot \square$ |
| $4 \times 3+3$ | : l : $:$ : $:$ : $:$ : |
| $5 \times 3$ | : $: 0: 0: \mid:$ |
| $6 \times 2+3$ |  |
| $7 \times 2+1$ |  |
| $8 \times 1+7$ |  |
| $9 \times 1+6$ | $\cdots \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdots$ |
| $10 \times 1+5$ | $\bullet \cdot \cdot \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \mid \cdot \bullet!~$ |
| $11 \times 1+4$ |  |
| 12×1+3 | $\bullet\\|\cdot\\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \mid!$ |
| $13 \times 1+2$ | $\cdots \cdot \\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\|$ |
| $14 \times 1+1$ |  |
| $15 \times 1$ | $\bullet \cdot\\|\cdot\\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\|$ |


| $2 \times 8$ |  |
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| $3 \times 5+1$ | $\because \cdot 0 \cdot 0^{\bullet} \cdot 0^{\circ}$ |
| $4 \times 4$ |  |
| $5 \times 3+1$ |  |
| $6 \times 2+4$ |  |
| $7 \times 2+2$ | . $0.0 \cdot 0 \cdot 0 \cdot 0 \cdot 0 \cdot 0$ |
| $8 \times 2$ |  |
| $9 \times 1+7$ |  |
| $10 \times 1+6$ | $\bullet \bullet \cdot \\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \bullet \cdots$ |
| $11 \times 1+5$ | $\bullet \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\|\cdot\| \bullet \cdot \square$ |
| $12 \times 1+4$ |  |
| $13 \times 1+3$ |  |
| $14 \times 1+2$ |  |
| $15 \times 1+1$ | $\bullet \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \mid$ |
| $16 \times 1$ |  |


| $2 \times 8+1$ |  |
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| $3 \times 5+2$ | $\bullet \cdot \square \cdot 0^{\bullet} \cdot 0^{\bullet}$ |
| $4 \times 4+1$ |  |
| $5 \times 3+2$ |  |
| $6 \times 2+5$ |  |
| $7 \times 2+3$ |  |
| $8 \times 2+1$ |  |
| $9 \times 1+8$ |  |
| $10 \times 1+7$ |  |
| 11×1+6 | $\bullet \cdot\\|\cdot\\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \mid \cdots$ |
| 12×1+5 | $\bullet \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \mid \cdot \bullet \bullet$ |
| $13 \times 1+4$ |  |
| 14×1+3 | $\bullet \cdot\\|\cdot\\| \cdot \\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \mid: ~$ |
| $15 \times 1+2$ |  |
| 16×1+1 | - $\\|\cdot\\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot 1$ |
| $17 \times 1$ | $\cdot \bullet \cdot \\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\| \| \cdot\|\cdot\| \cdot\|\cdot\| \cdot \mid$ |


| $2 \times 9$ |  |
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| $3 \times 6$ |  |
| $4 \times 4+2$ | $\bullet \bullet$ $\bullet$ $\bullet$ $\bullet$ $\bullet$ <br> $\bullet \bullet$ $\bullet$ $\bullet$ $\bullet$ - |
| $5 \times 3+3$ |  |
| $6 \times 3$ |  |
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| $9 \times 2$ |  |
| $10 \times 1+8$ |  |
| $11 \times 1+7$ |  |
| $12 \times 1+6$ |  |
| $13 \times 1+5$ |  |
| $14 \times 1+4$ |  |
| $15 \times 1+3$ |  |
| $16 \times 1+2$ |  |
| $17 \times 1+1$ |  |
| $18 \times 1$ |  |


| $2 \times 9+1$ |  |
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| $3 \times 6+1$ |  |
| $4 \times 4+3$ |  |
| $5 \times 3+4$ |  |
| $6 \times 3+1$ |  |
| $7 \times 2+5$ |  |
| $8 \times 2+3$ |  |
| $9 \times 2+1$ | $\ldots$ |
| $10 \times 1+9$ |  |
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| $19 \times 1$ | $\bullet \cdot\\|\cdot\\| \cdot\\|\cdot\\| \cdot \bullet \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\| \cdot\|\cdot\|$ |

Izidor Hafner
Illustrating Arithmetic with Graphic Arrays
http : // demonstrations.wolfram.com/IllustratingArithmeticWithGraphicArrays / Wolfram Demonstrations Project
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