

Šachovnice s násobilkou a tabulky se čtveřicemi čísel pro zadávání hromadného (písemného) procvičování násobení a dělení. Návody jsou pod šachovnicemi.

|    | A  | B  | C  | D  | E  | F  | G  | H  | CH | I   |    |
|----|----|----|----|----|----|----|----|----|----|-----|----|
|    | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10  |    |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 10 |
| 9  | 9  | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90  | 9  |
| 8  | 8  | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80  | 8  |
| 7  | 7  | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70  | 7  |
| 6  | 6  | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60  | 6  |
| 5  | 5  | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50  | 5  |
| 4  | 4  | 8  | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40  | 4  |
| 3  | 3  | 6  | 9  | 12 | 15 | 18 | 21 | 24 | 27 | 30  | 3  |
| 2  | 2  | 4  | 6  | 8  | 10 | 12 | 14 | 16 | 18 | 20  | 2  |
| 1  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10  | 1  |
|    | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10  |    |
|    | A  | B  | C  | D  | E  | F  | G  | H  | CH | I   |    |
| 7  | 10 | 1  | 5  | 9  | 8  | 1  | 10 | 1  | 4  |     |    |
| 4  | 1  | 2  | 7  | 4  | 9  | 2  | 1  | 10 | 2  |     |    |
| 7  | 2  | 6  | 4  | 7  | 0  | 9  | 5  | 2  | 3  |     |    |
| 3  | 7  | 5  | 0  | 6  | 10 | 0  | 6  | 9  | 7  |     |    |
| 7  | 0  | 8  | 3  | 1  | 3  | 6  | 7  | 3  | 5  |     |    |
| 9  | 8  | 4  | 1  | 7  | 4  | 5  | 9  | 8  | 6  |     |    |
| 3  | 6  | 8  | 6  | 9  | 2  | 10 | 1  | 4  | 2  |     |    |
| 5  | 10 | 1  | 2  | 3  | 7  | 0  | 2  | 7  | 4  |     |    |
| 9  | 3  | 7  | 9  | 7  | 0  | 10 | 4  | 5  | 9  |     |    |
| 3  | 2  | 4  | 6  | 2  | 10 | 8  | 8  | 6  | 1  |     |    |
| 0  | 3  | 10 | 9  | 5  | 5  | 8  | 1  | 6  | 10 |     |    |
| 5  | 1  | 9  | 10 | 8  | 2  | 0  | 3  | 4  | 3  |     |    |
| 4  | 2  | 3  | 2  | 2  | 0  | 5  | 7  | 5  | 7  |     |    |
| 5  | 4  | 0  | 5  | 2  | 3  | 4  | 6  | 7  | 1  |     |    |
| 4  | 5  | 1  | 8  | 10 | 6  | 0  | 9  | 1  | 6  |     |    |
| 0  | 3  | 10 | 8  | 8  | 1  | 7  | 6  | 9  | 8  |     |    |
| 1  | 9  | 8  | 10 | 7  | 3  | 2  | 5  | 8  | 10 |     |    |
| 6  | 0  | 3  | 6  | 2  | 6  | 7  | 1  | 2  | 5  |     |    |
| 10 | 2  | 7  | 6  | 3  | 10 | 5  | 3  | 10 | 9  |     |    |
| 4  | 8  | 9  | 1  | 6  | 9  | 8  | 5  | 3  | 5  |     |    |

**A) Označení sloupců se využije k rychlému a kontrolovatelnému zadávání početních příkladů** typu  $(G+H) \times (A+C)$ . Paní učitelka ukáže jednu řádku, zde třetí řada  $(21+24) \times (3+9) = 45 \times 12 = 540$ .

**Nebo násobení typu  $(C \times D \times G)$  a pak dělení.** Příklad třetí řádek:  $(9 \times 12 \times 21) = 108 \times 21 = 2\,268$ . Zpětně pak dělit toto číslo, které je násobkem celých čísel, tedy  $2\,268 : 9 = 252$ ;  $252 : 21 = 12$ . Máme kontrolu výpočtu a počítat písemně musíme stejně.

Sloupce můžeme využít k hromadným příkladům na písemné dělení. Příklad: Vypočti pro všechny řádky C:H. Pro třetí řádek bude  $9:24 = 0,375$ . Vynásobením  $0,375 \times 9 = 24$  si dělení kontrolujeme. Číslo počítáme na 3 desetinná místa a provedeme případně zaokrouhlení. Příklad se zaokrouhlením v B:CH v sedmém řádku bude  $14:63 = 0,222$ . Pak  $0,222 \times 14 = 3,1108$ .

Jiný způsob zadání: ve třetím řádku šachovnice násobilky  $ABC:D = 369:12 = 30,75$ .

| A  | B  | C  | D  | E  | F  | G  | H  | CH | I   | J  | K  | L  | M  | N   | O  | P  | R  | S  | T   |    |    |    |    |
|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|
| 6  | 10 | 7  | 9  | 1  | 8  | 8  | 6  | 7  | 51  | 7  | 0  | 9  | 7  | 101 | 1  | 1  | 9  | 5  | 151 | 5  | 4  | 9  | 0  |
| 8  | 10 | 3  | 0  | 2  | 7  | 6  | 2  | 2  | 52  | 5  | 4  | 6  | 0  | 102 | 1  | 7  | 10 | 10 | 152 | 10 | 9  | 2  | 1  |
| 8  | 9  | 9  | 0  | 3  | 5  | 1  | 2  | 2  | 53  | 6  | 5  | 4  | 8  | 103 | 2  | 5  | 9  | 6  | 153 | 6  | 10 | 3  | 2  |
| 3  | 1  | 9  | 0  | 4  | 6  | 10 | 5  | 9  | 54  | 9  | 3  | 3  | 0  | 104 | 0  | 2  | 10 | 10 | 154 | 3  | 10 | 2  | 2  |
| 4  | 6  | 7  | 7  | 5  | 6  | 0  | 7  | 2  | 55  | 7  | 3  | 2  | 1  | 105 | 4  | 0  | 4  | 6  | 155 | 1  | 5  | 7  | 1  |
| 3  | 3  | 3  | 8  | 6  | 3  | 2  | 7  | 3  | 56  | 0  | 9  | 4  | 10 | 106 | 3  | 10 | 10 | 1  | 156 | 5  | 0  | 1  | 6  |
| 6  | 8  | 1  | 2  | 7  | 10 | 4  | 9  | 4  | 57  | 5  | 7  | 9  | 1  | 107 | 9  | 9  | 3  | 1  | 157 | 0  | 9  | 2  | 0  |
| 1  | 5  | 9  | 1  | 8  | 4  | 4  | 6  | 1  | 58  | 9  | 7  | 0  | 1  | 108 | 10 | 7  | 5  | 10 | 158 | 10 | 1  | 4  | 5  |
| 4  | 9  | 10 | 0  | 9  | 7  | 1  | 10 | 1  | 59  | 10 | 0  | 3  | 2  | 109 | 8  | 6  | 10 | 9  | 159 | 4  | 4  | 6  | 7  |
| 6  | 3  | 1  | 5  | 10 | 4  | 4  | 4  | 5  | 60  | 4  | 8  | 10 | 6  | 110 | 1  | 2  | 3  | 3  | 160 | 0  | 6  | 4  | 4  |
| 0  | 6  | 6  | 2  | 11 | 4  | 2  | 6  | 1  | 61  | 8  | 2  | 1  | 10 | 111 | 5  | 5  | 10 | 6  | 161 | 7  | 9  | 9  | 2  |
| 7  | 2  | 4  | 2  | 12 | 7  | 8  | 9  | 8  | 62  | 3  | 7  | 9  | 4  | 112 | 0  | 1  | 10 | 0  | 162 | 8  | 8  | 2  | 10 |
| 6  | 3  | 9  | 1  | 13 | 0  | 4  | 4  | 0  | 63  | 8  | 7  | 3  | 8  | 113 | 4  | 2  | 5  | 3  | 163 | 3  | 9  | 3  | 9  |
| 2  | 0  | 1  | 0  | 14 | 1  | 9  | 3  | 6  | 64  | 4  | 0  | 10 | 9  | 114 | 10 | 0  | 6  | 9  | 164 | 4  | 5  | 1  | 2  |
| 6  | 1  | 6  | 6  | 15 | 6  | 1  | 6  | 3  | 65  | 6  | 9  | 2  | 0  | 115 | 3  | 3  | 5  | 10 | 165 | 2  | 6  | 3  | 1  |
| 1  | 7  | 2  | 0  | 16 | 9  | 4  | 3  | 0  | 66  | 7  | 4  | 5  | 4  | 116 | 3  | 1  | 2  | 9  | 166 | 5  | 9  | 1  | 4  |
| 9  | 9  | 1  | 2  | 17 | 6  | 0  | 6  | 2  | 67  | 6  | 0  | 1  | 3  | 117 | 2  | 4  | 2  | 1  | 167 | 9  | 1  | 2  | 2  |
| 2  | 2  | 2  | 5  | 18 | 7  | 9  | 4  | 10 | 68  | 1  | 6  | 5  | 10 | 118 | 5  | 2  | 5  | 10 | 168 | 9  | 3  | 8  | 1  |
| 3  | 0  | 0  | 10 | 19 | 2  | 8  | 9  | 10 | 69  | 10 | 6  | 6  | 7  | 119 | 7  | 10 | 6  | 9  | 169 | 5  | 9  | 10 | 6  |
| 2  | 9  | 3  | 3  | 20 | 9  | 1  | 6  | 10 | 70  | 1  | 5  | 0  | 6  | 120 | 4  | 4  | 4  | 5  | 170 | 5  | 0  | 9  | 5  |
| 3  | 8  | 3  | 1  | 21 | 2  | 4  | 0  | 8  | 71  | 0  | 2  | 5  | 2  | 121 | 8  | 4  | 8  | 5  | 171 | 10 | 0  | 0  | 8  |
| 1  | 2  | 10 | 2  | 22 | 6  | 4  | 1  | 9  | 72  | 8  | 5  | 7  | 2  | 122 | 5  | 10 | 3  | 0  | 172 | 5  | 7  | 4  | 5  |
| 10 | 6  | 1  | 6  | 23 | 8  | 6  | 0  | 2  | 73  | 9  | 3  | 9  | 9  | 123 | 4  | 10 | 8  | 2  | 173 | 4  | 10 | 5  | 1  |
| 7  | 2  | 4  | 5  | 24 | 1  | 9  | 10 | 4  | 74  | 3  | 0  | 0  | 3  | 124 | 9  | 1  | 9  | 7  | 174 | 7  | 6  | 1  | 4  |
| 6  | 2  | 3  | 4  | 25 | 10 | 1  | 9  | 7  | 75  | 0  | 5  | 5  | 8  | 125 | 6  | 9  | 4  | 2  | 175 | 2  | 7  | 1  | 9  |
| 6  | 4  | 5  | 7  | 26 | 5  | 10 | 5  | 2  | 76  | 8  | 4  | 2  | 4  | 126 | 3  | 5  | 3  | 9  | 176 | 3  | 3  | 4  | 10 |
| 0  | 4  | 7  | 10 | 27 | 1  | 1  | 2  | 5  | 77  | 6  | 8  | 3  | 6  | 127 | 7  | 5  | 0  | 1  | 177 | 4  | 5  | 5  | 6  |
| 9  | 0  | 0  | 7  | 28 | 8  | 1  | 8  | 7  | 78  | 4  | 4  | 4  | 3  | 128 | 8  | 3  | 0  | 0  | 178 | 5  | 6  | 0  | 0  |
| 0  | 5  | 0  | 4  | 29 | 7  | 2  | 0  | 0  | 79  | 5  | 9  | 6  | 1  | 129 | 2  | 2  | 3  | 2  | 179 | 8  | 9  | 5  | 0  |
| 9  | 5  | 6  | 4  | 30 | 1  | 9  | 8  | 2  | 80  | 3  | 0  | 3  | 2  | 130 | 7  | 9  | 8  | 10 | 180 | 2  | 10 | 9  | 2  |
| 10 | 7  | 9  | 4  | 31 | 9  | 3  | 9  | 2  | 81  | 4  | 2  | 3  | 7  | 131 | 3  | 9  | 8  | 2  | 181 | 10 | 5  | 3  | 5  |
| 2  | 4  | 4  | 2  | 32 | 1  | 10 | 6  | 0  | 82  | 3  | 3  | 8  | 1  | 132 | 10 | 9  | 3  | 1  | 182 | 6  | 0  | 10 | 6  |
| 9  | 10 | 7  | 2  | 33 | 3  | 8  | 2  | 1  | 83  | 7  | 0  | 0  | 10 | 133 | 2  | 5  | 9  | 10 | 183 | 7  | 9  | 9  | 9  |
| 8  | 8  | 2  | 0  | 34 | 0  | 1  | 9  | 9  | 84  | 4  | 3  | 8  | 7  | 134 | 1  | 7  | 7  | 2  | 184 | 5  | 2  | 4  | 0  |
| 8  | 5  | 1  | 0  | 35 | 2  | 8  | 5  | 0  | 85  | 5  | 1  | 8  | 2  | 135 | 2  | 6  | 6  | 5  | 185 | 7  | 2  | 6  | 4  |
| 5  | 10 | 3  | 6  | 36 | 10 | 10 | 1  | 9  | 86  | 3  | 5  | 10 | 3  | 136 | 3  | 0  | 10 | 9  | 186 | 7  | 6  | 3  | 8  |
| 3  | 2  | 1  | 10 | 37 | 8  | 1  | 0  | 9  | 87  | 3  | 8  | 3  | 6  | 137 | 3  | 1  | 10 | 5  | 187 | 5  | 8  | 5  | 2  |
| 8  | 3  | 0  | 6  | 38 | 10 | 6  | 5  | 10 | 88  | 1  | 10 | 3  | 0  | 138 | 7  | 3  | 5  | 5  | 188 | 4  | 4  | 3  | 9  |
| 2  | 8  | 0  | 1  | 39 | 3  | 6  | 9  | 10 | 89  | 10 | 0  | 3  | 3  | 139 | 4  | 10 | 4  | 10 | 189 | 8  | 0  | 8  | 8  |
| 10 | 7  | 10 | 9  | 40 | 0  | 10 | 0  | 1  | 90  | 8  | 5  | 1  | 6  | 140 | 1  | 6  | 4  | 6  | 190 | 6  | 10 | 5  | 10 |
| 7  | 6  | 2  | 1  | 41 | 10 | 4  | 3  | 4  | 91  | 5  | 3  | 8  | 0  | 141 | 9  | 10 | 8  | 6  | 191 | 5  | 10 | 2  | 9  |
| 6  | 5  | 1  | 5  | 42 | 2  | 5  | 6  | 4  | 92  | 2  | 9  | 0  | 1  | 142 | 6  | 5  | 0  | 9  | 192 | 0  | 5  | 2  | 7  |
| 10 | 1  | 7  | 6  | 43 | 8  | 7  | 9  | 6  | 93  | 4  | 2  | 4  | 4  | 143 | 5  | 10 | 3  | 10 | 193 | 5  | 6  | 0  | 9  |
| 3  | 7  | 5  | 7  | 44 | 3  | 5  | 3  | 10 | 94  | 0  | 0  | 6  | 2  | 144 | 4  | 4  | 4  | 5  | 194 | 0  | 9  | 6  | 6  |
| 0  | 1  | 10 | 0  | 45 | 6  | 4  | 3  | 9  | 95  | 7  | 9  | 8  | 6  | 145 | 9  | 9  | 7  | 9  | 195 | 6  | 0  | 10 | 3  |
| 10 | 9  | 2  | 6  | 46 | 1  | 1  | 7  | 5  | 96  | 3  | 1  | 6  | 2  | 146 | 6  | 4  | 5  | 4  | 196 | 5  | 1  | 10 | 7  |
| 9  | 2  | 6  | 0  | 47 | 8  | 5  | 7  | 4  | 97  | 4  | 5  | 4  | 7  | 147 | 2  | 3  | 7  | 7  | 197 | 8  | 5  | 1  | 8  |
| 10 | 2  | 3  | 9  | 48 | 3  | 6  | 1  | 3  | 98  | 7  | 7  | 7  | 10 | 148 | 2  | 9  | 9  | 3  | 198 | 3  | 5  | 4  | 0  |
| 4  | 4  | 0  | 8  | 49 | 9  | 2  | 1  | 10 | 99  | 5  | 5  | 6  | 10 | 149 | 6  | 5  | 1  | 2  | 199 | 10 | 6  | 10 | 5  |
| 6  | 9  | 7  | 5  | 50 | 6  | 8  | 3  | 8  | 100 | 7  | 0  | 10 | 8  | 150 | 8  | 1  | 3  | 6  | 200 | 4  | 2  | 8  | 5  |
| A  | B  | C  | D  | E  | F  | G  | H  | CH | I   | J  | K  | L  | M  | N   | O  | P  | R  | S  | T   |    |    |    |    |

**B) Označení v tabulce čtveřic čísel sloupců se využije k rychlému a kontrolovatelnému zadávání početních příkladů.** Vyřeší se jeden řádek, pak lze zadat pro samostatnou práci celé bloky řádků.

První řádek má čísla : **6,10,7,9**. Pak  $AxBxCxD = 6 \times 10 \times 7 \times 9 = 60 \times 63 = 3780$ . Pak  $3780 : 9 = 420$ . Pak  $420 : 7 = 60$ . Pak  $60 : 10 = 6$ .

Jiný způsob zadávání typu  $AB \times CD$ . Čísla AC (6 a 10) spojíme, tedy 610 a CD (79). Pak  $AB \times CD = 610 \times 79 = 48190$ . Pak  $48190 : 79 = 610$ .

Jiný způsob zadávání typu  $(B+C-A) \times D = (10+7-6) \times 9 = 11 \times 9 = 99$ . Pak  $99 : 9 = 11$ .

