

$$988^2 = 988 \cdot 988 = (988 + 12) \cdot (988 - 12) + 12^2 = 1000 \cdot 976 + 144 = 976144$$

$$a^2 = a^2 - b^2 + b^2 = (a - b)(a + b) + b^2$$

$b$

$$18^2 = (18 + 2) \cdot (18 - 2) + 2^2 = 20 \cdot 16 + 2^2 = 320 + 4 = 324,$$

$$37^2 = (37 + 3) \cdot (37 - 3) + 3^2 = 40 \cdot 34 + 2^2 = 1360 + 9 = 1369,$$

$$54^2 = (54 + 4) \cdot (54 - 4) + 4^2 = 58 \cdot 50 + 4^2 = 2900 + 16 = 2916,$$

$$63^2 = (63 + 3) \cdot (63 - 3) + 3^2 = 66 \cdot 60 + 3^2 = 3960 + 9 = 3969.$$

67, 76, 89, 91, 27, 44 66 .

)

5. ,

5,

$$\overline{a5}^2 = (10a + 5)^2 = 100a^2 + 100a + 25 = 100a(a + 1) + 25 .$$

$a(a + 1)$ ,

$a$

100

25.

$$35^2 = 100 \cdot 3 \cdot 4 + 25 = 1225,$$

$$75^2 = 100 \cdot 7 \cdot 8 + 25 = 5625,$$

$$85^2 = 100 \cdot 8 \cdot 9 + 25 = 7225$$

$a(a+1)$

25 ( ?).

5.

$a$ ,

$\frac{1}{2}$ ,

$$\begin{aligned}(a\frac{1}{2})^2 &= (a + \frac{1}{2})^2 = (a + 0,5)^2 \\ &= a^2 + a + 0,25 \\ &= a(a+1) + 0,25\end{aligned}$$

$$(6\frac{1}{2})^2 = 6 \cdot 7 + 0,25 = 42,25$$

$$(9\frac{1}{2})^2 = 9 \cdot 10 + 0,25 = 90,25.$$

)

10.

$$\begin{aligned}\overline{abc} \cdot \overline{aby}, \quad c + y = 10 \\ \overline{abc} \cdot \overline{aby} &= (10\overline{ab} + c) \cdot (10\overline{ab} + y) \\ &= 100\overline{ab} \cdot \overline{ab} + 10\overline{ab}(c + y) + cy \\ &= 100\overline{ab} \cdot \overline{ab} + 100\overline{ab} + cy \\ &= 100\overline{ab}(\overline{ab} + 1) + cy\end{aligned}$$

j

$$\begin{aligned}783 \cdot 787 &= 100 \cdot 78 \cdot 79 + 21 = 100 \cdot 6162 + 21 = 616221, \\ 654 \cdot 656 &= 100 \cdot 65 \cdot 66 + 24 = 100 \cdot 4290 + 24 = 429024.\end{aligned}$$

$$352 \cdot 358, \quad 763 \cdot 767 \quad 229 \cdot 221.$$

)

