

Testul 2

1. a) $5^3 - 2^4 = 125 - 16 = 109$

b) $123^0 - 1^{2012} = 1 - 1 = 0$

c) $5^2 \cdot 2^2 = (5 \cdot 2)^2 = 10^2 = 100$

d) $(2+9)^2 = 11^2 = 121$

2. a) $26^{89} > 26^{88}$, $89 > 88$

b) $15^{768} > 14^{768}$, $15 > 14$

c) $9^{32} > 8^{31}$, $9 > 8$ și $32 > 31$

d) $64^9 > 4^{21}$

$$64^9 = (4^3)^9 = 4^{27}$$

3. a) $3^{51} : 3^{48} + 23^1 \cdot 3^3 + 1220^0 = 3^{51-48} + 23 \cdot 27 + 1 = 3^3 + 621 + 1 =$
 $= 27 + 621 + 1 = 648 + 1 = 649$

b) $3^4 \cdot 7^2 + 22^1 \cdot 10^3 - 154^1 = 81 \cdot 49 + 22 \cdot 1000 - 154 =$
 $= 3969 + 22000 - 154 = 25969 - 154 = 25815$

c) $13 - 3 \cdot [7 - 2 \cdot (5 - 3)] = 13 - 3(7 - 2 \cdot 2) = 13 - 3 \cdot (7 - 4) =$
 $= 13 - 3 \cdot 3 = 13 - 9 = 4$

d) $12 \cdot \{ 110 - 10 \cdot [9 \cdot 8 - 9 \cdot (15 - 8)] \} = 12 \cdot [110 - 10 \cdot (72 - 9 \cdot 7)] =$
 $= 12 \cdot [110 - 10 \cdot (72 - 63)] = 12 \cdot (110 - 10 \cdot 9) = 12 \cdot (110 - 90) =$
 $= 12 \cdot 20 = 240$

