

**1. Να παραγοντοποιηθούν οι παραστάσεις :**

- |       |   |        |                        |
|-------|---|--------|------------------------|
| I.    | $\omega^2 + \omega$                                 | X.     | $1 - 9a^2\beta^2$      |
| II.   | $5x^3 - 10x + 5xy$                                  | XI.    | $(2x+1)^2 - 9y^2$      |
| III.  | $3x^3y - 6xy + 9xy^2$                               | XII.   | $(3y-2)^2 - (y-1)^2$   |
| IV.   | $x^2(a-3) - 5x(3-a)$                                | XIII.  | $x^2 + 6x + 9$         |
| V.    | $xy - 3yz + 2x - 6z$                                | XIV.   | $z^2 - 4z + 4$         |
| VI.   | $10x + x^2 - 120\beta - 12x\beta$                   | XV.    | $36x^2 + 25y^2 + 60xy$ |
| VII.  | $3\alpha^2 - 3\beta^2 - 9\alpha\beta + \alpha\beta$ | XVI.   | $2x^2 + 6x + 4$        |
| VIII. | $\kappa^2 - 64$                                     | XVII.  | $y^2 - 8y + 15$        |
| IX.   | $100x^2 - y^2$                                      | XVIII. | $2a^3 - 32a$           |

**2. Να παραγοντοποιήσετε τις παραστάσεις :**

- |       |   |        |  |
|-------|---|--------|--|
| i.    | $by - ay + bz - az - bx + ax$                                 | xi.    | $\alpha x^2 - 4\beta x^2 - 5\alpha y^2 + 4\beta y^2$ |
| ii.   | $\alpha\chi^3 + \alpha y^2\chi - \beta\chi^3 - \beta y^2\chi$ | xii.   | $(3\alpha + \beta)^2 - (5\alpha - 4\beta)^2$         |
| iii.  | $225x^2 - 9y^2$   | xiii.  | $\alpha\beta^2 - \alpha\gamma^2$                     |
| iv.   | $3x^2 - 27y^2$  | xiv.   | $x^2 - y^2 - (x - y)(2x + y)$                        |
| v.    | $\alpha x^2 + bx^2 - ay^2 - by^2$                             | xv.    | $\beta\chi - \alpha\beta - \chi^2 + \alpha\chi$      |
| vi.   | $4a^3 - 4 - 16a^2 + a$  | xvi.   | $\alpha^3 - \alpha$                                  |
| vii.  | $(\alpha - 2\beta)^2 - 25$                                    | xvii.  | $x^5 - x^3 - x^2 + 1$                                |
| viii. | $xy^2 - 1 - y^2 + x$  | xviii. | $x^4 - x^2y^2 + xy^3 - y^4$                          |
| ix.   | $3a^2 - 3\beta^2 + 6a - 6\beta$                               | xix.   | $9x^2y^2 - 6xy + 1$                                  |
| x.    | $25\alpha^2 - 10\alpha\beta + \beta^2$                        |        |  |