

# CURSO MENTOR

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**Professor:** Leonardo Santos

**Tema:** Produtos Notáveis I

**Data:** 16 de setembro de 2013

**Q1.** Calcule o quadrado da soma em cada item:

- |                                     |   |                                      |  |
|-------------------------------------|---|--------------------------------------|--|
| a) $(x + 3)^2$                      | g) $(x + 2y)^2$                                 | l) $\left(\frac{1}{x} + 3\right)^2$  | q) $\left(\frac{rs}{3} + \frac{1}{2}tu\right)^2$ |
| b) $(6 + u)^2$                      | h) $(3x + 4y)^2$                                |                                      | r) $(x + y + w)^2$                               |
| c) $(2x + 1)^2$                     | i) $\left(\frac{x}{5} + 2w\right)^2$            | m) $\left(3x + \frac{1}{x}\right)^2$ | s) $(x + 2y + 3z + 4w)^2$                        |
| d) $(4 + 3t)^2$                     | j) $\left(\frac{s}{7} + \frac{v}{5}\right)^2$   | n) $(x^2 + 1)^2$                     | t) $(\sqrt{2}x + \sqrt{3}y)^2$                   |
| e) $\left(x + \frac{1}{2}\right)^2$ | k) $\left(\frac{3}{4}x + \frac{2}{5}y\right)^2$ | o) $(x^2 + 3y^3)^2$                  | u) $(2\sqrt{x} + 3\sqrt{y})^2$                   |
| f) $\left(\frac{3}{4} + u\right)^2$ |   | p) $(4r^5 + 2s^2)^2$                 | v) $[(x + y)^2 + 3]^2$                           |

## GABARITO

**Q1.**

- |   |   |
|---|---|
| a) $x^2 + 6x + 9$                                       | m) $9x^2 + 6 + \frac{1}{x^2}$   |
| b) $36 + 12u + u^2$                                     | n) $x^4 + 2x^2 + 1$   |
| c) $4x^2 + 4x + 1$                                      | o) $x^4 + 6x^2y^3 + 9y^6$   |
| d) $16 + 24t + 9t^2$                                    | p) $16r^{10} + 16r^5s^2 + 4s^4$   |
| e) $x^2 + x + \frac{1}{4}$                              | q) $\frac{1}{9}r^2s^2 + \frac{1}{3}rstu + \frac{1}{4}t^2u^2$                |
| f) $\frac{9}{16} + \frac{3}{2}u + u^2$                  | r) $x^2 + 2xy + y^2 + 2wx + 2wy + w^2$                                      |
| g) $x^2 + 4xy + 4y^2$                                   | s) $x^2 + 4xy + 4y^2 + 6xz + 8xw + 12yz + 16yw + 9z^2 + 24zw + 16w^2$       |
| h) $9x^2 + 24xy + 16y^2$                                | t) $2x^2 + 2\sqrt{6}xy + 3y^2$  |
| i) $\frac{1}{25}x^2 + \frac{4}{5}xw + 4w^2$             | u) $4x + 12\sqrt{xy} + 9y$  |
| j) $\frac{1}{49}s^2 + \frac{2}{35}sv + \frac{1}{25}v^2$ | v) $x^4 + 4x^3y + 4x^2y^2 + 2x^2y^2 + 6x^2 + 4xy^3 + 12xy + y^4 + 6y^2 + 9$ |
| k) $\frac{9}{16}x^2 + \frac{3}{5}xy + \frac{4}{25}y^2$  |   |
| l) $\frac{1}{x^2} + \frac{6}{x} + 9$                    |   |