

Exercícios de quádricas apenas do item D.

Exercício A

1) $3x^2 + 2xy + 3y^2 - \sqrt{2}x = 0$

6) $16x^2 + 9y^2 - 96x + 72y + 144 = 0$

2) $17x^2 + 12xy + 8y^2 - 10x + 20y + 5 = 0$

7) $5x^2 + 4xy + 2y^2 - 12 = 0$

3) $4x^2 + y^2 + 4xy + 5\sqrt{5}x + 10\sqrt{5}y + 5 = 0$

8) $3x^2 + 2xy + 3y^2 - 4 = 0$

4) $x^2 + y^2 + xy + 5\sqrt{2}x + 4\sqrt{2}y + 1 = 0$

9) $7x^2 + 13y^2 - 6\sqrt{3}xy - 16 = 0$

5) $3x^2 - 2xy + 3y^2 - 2x - 10y - 1 = 0$

10) $x^2 + xy + y^2 - 3 = 0$

Exercício B

1) $7x^2 + y^2 - 8xy - 17\sqrt{5}x + 11\sqrt{5}y + 41 = 0$

6) $xy + x + y = 0$

2) $4x^2 + 6xy - 4y^2 + 20x + 20y - 19 = 0$

7) $3x^2 - 4\sqrt{3}xy - y^2 + 20y - 25 = 0$

3) $4x^2 - 5y^2 + 8x + 30y - 21 = 0$

8) $4xy + 3y^2 + 2\sqrt{5}x + 4\sqrt{5}y = 0$

4) $7x^2 - 8xy + y^2 + 36 = 0$

9) $x^2 + 4y^2 + 3\sqrt{3}xy - 1 = 0$

5) $xy = 2$

10) $xy = 9$

Exercício C

1) $x^2 + 2xy + y^2 - 8x + 4 = 0$

6) $4x^2 + 4xy + y^2 + x = 0$

2) $x^2 - 6x + 8y + 1 = 0$

7) $xy + 4\sqrt{2}x + 6\sqrt{2}y + 30 = 0$

3) $x^2 + y^2 + 2xy - 4\sqrt{2}x = 0$

8) $2x^2 + y^2 + 2\sqrt{6}xy = 16$

4) $4x^2 + 4xy + y^2 - x = 0$

9) $17x^2 - 12xy + 8y^2 = 0$

5) $x^2 - 2xy + y^2 - 10x - 6y + 25 = 0$

10) $19x^2 + 6xy + 11y^2 + 38x + 6y + 29 = 0$

Exercício D - Quádricas

1) $3z^2 + 2xy + x + 1 = 0$

2) $2xy - 6x + 10y + z - 31 = 0$

3) $x^2 + y^2 + z^2 + 2xy + 2xz + 2yz + x + y + z - 1 = 0$

4) $\frac{x^2}{2} + \frac{y^2}{2} + z^2 - xy - \sqrt{2}x + \sqrt{2}y + 2z + 1 = 0$

5) $x^2 + 4xy + 4y^2 + 9z^2 - 6xz - 12yz + x + 3y - z = 0$

6) $x^2 + 2xy + z^2 + 4 = 0$

7) $xy + xz + yz = 0$

8) $xy - xz + yz = 1$

9) $x^2 + xy - xz + yz + x = 1$

10) $x^2 + y^2 + xy - xz + yz + x = 1$

11) $x^2 + y^2 + z^2 + xy + xz + yz + 2x + 2y + 2z = 16$