

Respostas dos exercícios de revisão para V3

1. Respostas

a) $\sqrt{13}$

b) 4

2. $\frac{6}{\sqrt{11}}$

3. $\frac{\sqrt{3}}{2}$

4. $\frac{5}{\sqrt{2}}$

5. Respostas

a) $\frac{3}{\sqrt{5}}$

b) 0

c) 5

6. Respostas:

a) $x^2 - 8x - 16y + 32 = 0$

b) $y^2 + 6y + 8x + 49$

c) $3x^2 + 12x + 16y - 36$

7. Respostas

a) $V(4, -5)$, $F(4, -4)$, $y = -6$, $x = 4$

b) $V(3, -4)$, $F(3, -\frac{31}{8})$, $8y + 33 = 0$, $x = 3$

8. Respostas

a) $y = -\frac{1}{2}x^2 + x + 4$

b) $x = -\frac{1}{4}y^2 + 2y - 6$

9. Respostas

a) $x^2 + 6x - 4y + 21 = 0$

b) $y^2 - 6y + 4x + 5$

10. Respostas

a) (2,0) e (4,0)

b) (-1,15) e (7,15)

c) $y + 1 = (x - 3)^2$

11. Respostas

a) $C(3,-1)$, $A_1(6, -1)$, $A_2(0, -1)$, $F(3 \pm \sqrt{5}, -1)$, $e = \frac{\sqrt{5}}{3}$

b) $C(-2,2)$, $A_1(-2, -2)$, $A_2(-2, 6)$, $F(-2, 2 \pm \sqrt{15})$, $e = \frac{\sqrt{15}}{4}$

12. Respostas:

a) $x^2 + y^2 = 1$ e $x^2 + y^2 = 16$

b) $x^2 + y^2 - 8x + 4y + 16 = 0$ e $x^2 + y^2 - 8x + 4y + 11 = 0$

13. 600km

14. Respostas

a) $x^2 - y^2 - 10x + 2y + 16 = 0$

b) $x^2 - y^2 + 6x + 25 = 0$

c) $24x^2 - 5y^2 + 96x + 10y = 0$

15. Respostas

a) $C(1, -2)$, $A_1(-1, -2)$, $A_2(3, -2)$, $F(1 \pm \sqrt{13}, -2)$, $e = \frac{\sqrt{13}}{2}$, $3x - 2y - 7 = 0$ e $3x + 2y + 1 = 0$

b) $C(-3, 3)$, $A_1(-5, 3)$, $A_2(-1, 3)$, $F(-3 \pm \sqrt{5}, 3)$, $e = \frac{\sqrt{5}}{2}$, $x - 2y + 9 = 0$ e $x + 2y - 3 = 0$

16. $9x^2 + 5y^2 - 45 = 0$

17. $\frac{x^2}{4} - \frac{y^2}{12} = 1$