

+MatE

- Projeto Mais Matemática para as Engenharias
- Curso intensivo de matemática básica

GABARITO

LISTA 1

1. (a) F (b) F (c) V (d) V (e) V (f) F (g) V (h) V (i) F (j) F

2. (a) F (b) V (c) F (d) V (e) F

3. (a) 12 (b) 8 (c) -4

4. (a) 19 (b) 13 (c) -6

5.

(a) π , $\sqrt{5}$ e $\frac{1}{2}$ pertencem ao intervalo.



(b) 6, π , $\sqrt{5}$ pertencem ao intervalo.



(c) 6 pertence ao intervalo.



6.

(a) $x > 16$ (b) $-2 < y < 9$ (c) $z < -4$ (d) $a > 0$ (e) $b < 0$ (f) $-6 < r < 0$

7.

(a) $(4, \infty)$ (b) $(-\infty, -2)$ (c) $[2, \infty)$ (d) $(-\infty, \pi]$

8.

- (a) $A = \{x \in \mathbb{R} / 6 \leq X \leq 13\}$ (b) $B = \{x \in \mathbb{R} / -4 < X \leq 8\}$ (c) $C = \{x \in \mathbb{R} / -9 < X < 0\}$
 (d) $D = \{x \in \mathbb{R} / x \geq 4\}$

9.

- (1º quadrante) $A(50,40)$
 (2º quadrante) $G(-40,5)$
 (3º quadrante) $B(-60,-60)$
 (4º quadrante) $C(71,-71)$
 (ao eixo das abscissas) $D(100,0)$
 (ao eixo das ordenadas) $E(0,20)$

10.

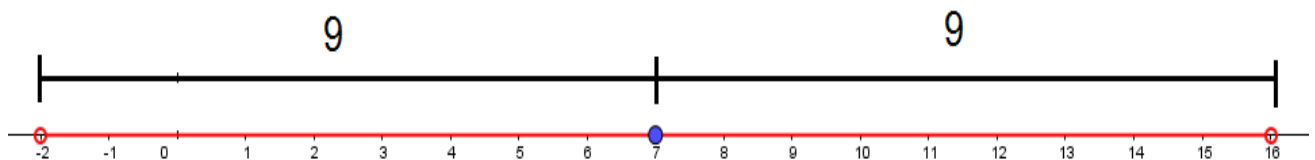
- $A(4,2)$ $B(-1,-2)$ $C(-3,3)$ $D(5,-4)$ $E(0,-3)$ $F(3,0)$ $G(0,\frac{1}{2})$

11.

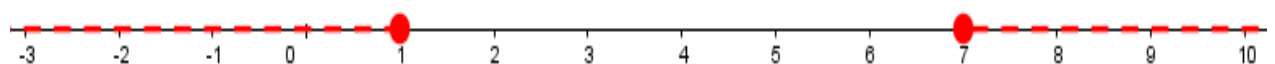
- (a) $(-\infty, -2] \cup [2, \infty)$ b) $(-8,8)$

12.

- (a) $\{x \in \mathbb{R} / |x-7| < 9\}$



- (b) $\{x \in \mathbb{R} / |x-4| \geq 3\}$



13.

(a) $t \in (-1,3)$ (b) $t \in (-\infty,0] \cup [6, \infty)$

14.

(a) $a=-2$ ou $a=4$ (b) $a=+\sqrt{55}$ ou $a=-\sqrt{55}$

15. $\sqrt{2}$

16. $dAC=\sqrt{17}$, $dBC=\sqrt{17}$ e $dAB=5$, logo é isósceles pois temos dois lados de mesma medida, isso é, congruentes..

17. $M_1(-1,-2)$, $M_2(1,-1)$, $M_3(-2,3)$

18. (a) $m=\frac{1}{2}$ (b) $m=-1$ (c) $m=\frac{4}{3}$ (d) $m=-1$

19. $x+2y+1=0$

20. $y=\frac{x}{4} + \frac{19}{4}$

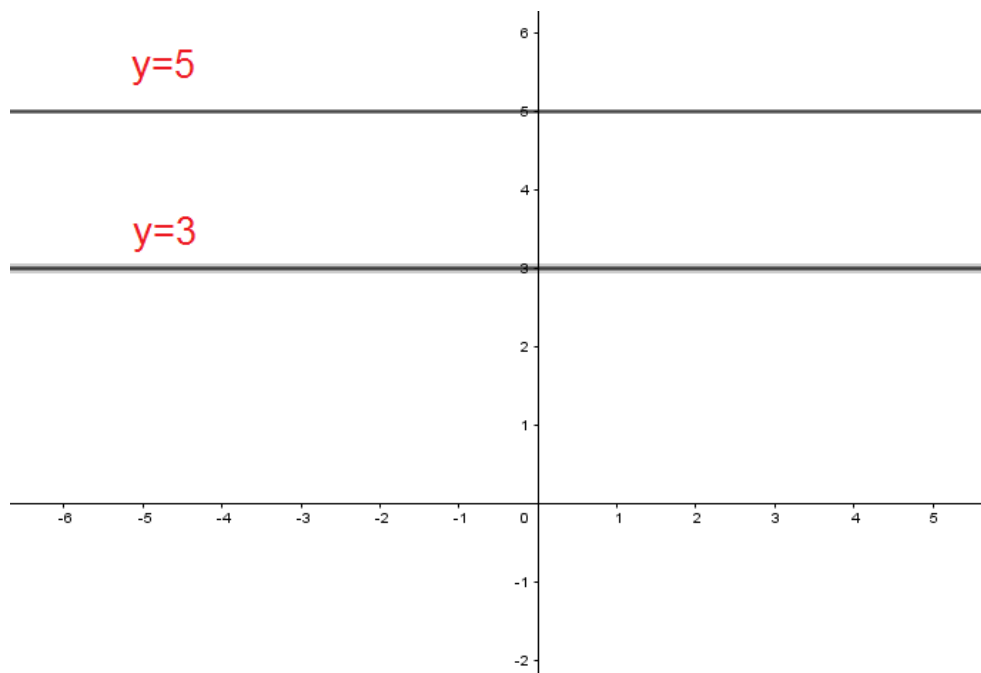
21.

Reta AC: Geral: $4x-5y+1=0$ Reduzida: $y=\frac{4x+1}{5}$

Reta BD: Geral: $2x+3y-16=0$ Reduzida: $y=\frac{-2x+16}{3}$

22. $3x-2y-4=0$

23. (a) $y=5$ (b) $y=3$



24. $a=1$, $a=-4$

25. $4x - 3y + 18 = 0$

26. $y = 1,8x + 32$

27. C