

Nome do aluno

Nº

Data

/ / 20

AVALIAR CONHECIMENTOS - SOLUÇÕES

ESCOLHA MÚLTIPLA

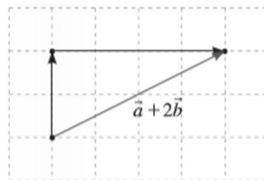
- 1.
 - 1.1. A
 - 1.2. A
- 2. B
- 3. D
- 4. D
- 5. C
- 6. A
- 7. A
- 8. D
- 9. A
- 10. D
- 11. D
- 12. C

RESPOSTA ABERTA

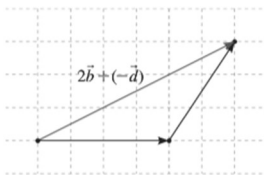
13.

13.1.

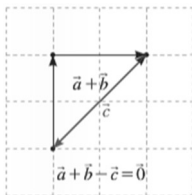
13.1.1.



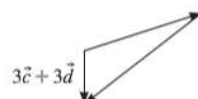
13.1.2.



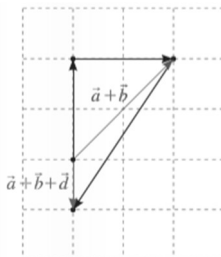
13.1.3.



13.1.4.



13.2. Temos $k = -\frac{1}{2}$



13.3. Podemos afirmar que são colineares.

14.

14.1.

14.1.1. \overrightarrow{HC}

14.1.2. \overrightarrow{ID}

14.2.

14.2.1. \overrightarrow{AL}

14.2.2. \overrightarrow{GD}

14.2.3. \overrightarrow{GL}

14.2.4. -1

14.2.5. \overrightarrow{KE}

14.2.6. F

14.3. $10\sqrt{2}$

14.4. São colineares porque $\overrightarrow{EF} = -\frac{1}{3}\overrightarrow{LI}$

14.5. Por exemplo, \overrightarrow{LB}

14.6. (20, 5)

15.

15.1. A norma de \vec{v} é duas vezes maior que a norma de \vec{u} .

15.2. $\alpha = -\frac{13}{2}$

16.

16.1. 4

16.2. ± 1

16.3. 2

17.

17.1. $\vec{e} = 4\vec{a} - 11\vec{b}$

17.2. $\vec{a} = \frac{4}{5}\vec{c} + \frac{3}{5}\vec{d}$ e $\vec{b} = \frac{1}{5}\vec{c} + \frac{2}{5}\vec{d}$

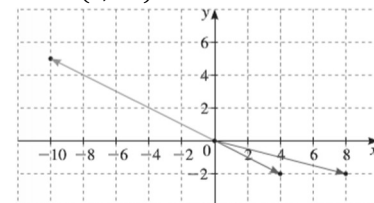
18.

18.1. (8, -4)

18.2. (-10, 5)

18.3. (-10, 5)

18.4. (4, -2)



19. $\|(8, -4)\| = 4\sqrt{5}$

$\|(-10, 5)\| = 5\sqrt{5}$

$\|(4, -2)\| = 2\sqrt{5}$

20.

20.1. (-9, -14)



20.2. $(-1, -3)$ e $(1, 3)$

20.3. $k = -\frac{5}{8}$

21.

21.1. $(4, 4)$

21.2. $y = \frac{5}{3}x - \frac{25}{3}$

21.3. $(x - 4)^2 + (y - 4)^2 = \frac{17}{2}$

21.4. $A = 7,3 \text{ cm}^2$

22.

22.1.

22.1.1. $(\frac{11}{2}, -10)$

22.1.2. $(4, -1)$

22.2.

22.2.1. $y = -\frac{1}{3}x + \frac{1}{3}$

22.2.2. $(x, y) = (-2, 1) + k(2, -1), k \in \mathbb{R};$
 B não pertence à reta

22.2.3. $(x - 1)^2 + y^2 = 10$

23.

23.1. $(x, y) = (-2, 0) + k(3, 2), k \in \mathbb{R}$

23.2. Eixo das abscissas: $(-2, 0)$

Eixo das ordenadas: $(0, \frac{4}{3})$

23.3. $\begin{cases} x = -3 + 3k \\ y = 2 + 2k \end{cases}, k \in \mathbb{R}$

23.4. $S = \{(-5, -2)\}$

24.

24.1. $A(-3, -4), B(3, 4)$

24.2. $C = A + \vec{AC} = (-16, 12)$

24.3. $\frac{25}{2} \text{ u. a.}$

25.

25.1. $y = -2x - 4$

25.2. $(x + 1)^2 + (y - 1)^2 = 5$

25.3. $(x + 1)^2 + (y - 1)^2 \leq 5 \wedge y \leq -2x - 4$

26. $y \leq -\frac{1}{2}x + \frac{7}{2} \wedge y \geq 3x \wedge y \geq -\frac{5}{3}x$

$A = 7 \text{ u. a.}$

27.

27.1. $y = x + 3, y = -x + 3$

27.2. P não pertence à reta r

27.3. $y \leq -x + 3 \wedge y \leq x + 3 \wedge y \geq 0$

27.4. $(x, y) = (2, -3) + k(-3, -3), k \in \mathbb{R}$

28.

28.1. $A(-2\sqrt{2}, -2\sqrt{2}), B(3\sqrt{2}, -3\sqrt{2})$

28.2. $(x - \frac{\sqrt{2}}{2})^2 + (y + \frac{5\sqrt{2}}{2})^2 = 13$

28.3. $\begin{cases} x = -2\sqrt{2} + 5\sqrt{2}k \\ y = -2\sqrt{2} - \sqrt{2}k \end{cases}, k \in \mathbb{R}$