

cálculo 2, Stewart vol 2, ed 8, cap 12.2

9  $A(-2, 1)$   $B(1, 2)$

$$\vec{V} = (3, 1)$$



11  $A(3, -1)$   $B(2, 3)$

$$\vec{V} = (-1, 4)$$



13  $A(0, 3, 1)$   $B(2, 3, -1)$

$$\vec{V} = (2, 0, -2)$$

15  $(-1, 5) + (6, -1) = (5, 4)$

17  $(3, 0, 1) + (0, 8, 0) = (3, 8, 1)$

19  $a + b = (-3, 4) + (9, -1) = (6, 3)$

$$4a + 2b = (-12, 16) + (18, -2) = (6, 14)$$

$$|a| = \sqrt{9 + 16} = \sqrt{25} = 5$$

$$|a - b| = |(-12, 5)| = \sqrt{144 + 25} = 13$$

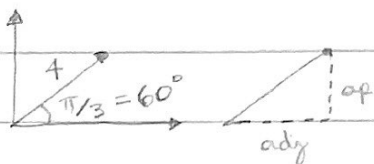
23  $(6, -2) \rightarrow \|\vec{v}\| = \sqrt{36 + 4} = \sqrt{40} = 2\sqrt{10}$

$$\text{vetor unitário} = \left( \frac{6}{2\sqrt{10}}, \frac{-2}{2\sqrt{10}} \right) = \left( \frac{3}{\sqrt{10}}, \frac{-1}{\sqrt{10}} \right)$$

25  $8i - j + 4k \rightarrow (8, -1, 4) \rightarrow \|\vec{v}\| = \sqrt{64 + 1 + 16} = \sqrt{81} = 9$

$$\text{vetor unitário} = \left( \frac{8}{9}, \frac{-1}{9}, \frac{4}{9} \right)$$

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$$\sin 60^\circ = \frac{\sqrt{3}}{2} = \frac{op}{4} \quad op = 2\sqrt{3}$$

$$\cos 60^\circ = \frac{1}{2} = \frac{ady}{4} \quad ady = 2$$

$$\vec{v} = (2, 2\sqrt{3})$$