

Terry Lee Vectors Review

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1

- a) \vec{AC}
- b) \vec{AC}
- c) $2\vec{AB}$
- f) $3\vec{BA}$

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Parallel = b
Orthogonal = b, c

7

- a) $(2, 3)$
- b) $2, -3$

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- a) $\underline{a} = 2\underline{b} - \underline{c}$. So, \underline{a} is linearly dependent on b and c and therefore these vectors span a plane.

2

- a) $\vec{AB} = (-4, 2)$, and $\vec{BC} = (14, -7)$. Then since $\vec{BC} = 3.5\vec{AB}$, the points A, B and C are collinear
- b) $k = 6$
- d) $m + 4 = -6 \Rightarrow m = -2.n - 5 = 2 \Rightarrow n = 7$.

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- a) $|\underline{a}| = \sqrt{13} \cdot |\underline{b}| = \sqrt{5} \cdot \theta = 2.09rad$
- d) $|\underline{a}| = \sqrt{17} \cdot |\underline{b}| = \sqrt{35} \cdot \theta = 1.61rad$

8

$$\theta = 1.86rad$$

b)

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