

UNIVERSITY OF MANITOBA

Quiz 5A

COURSE: MATH 1210

DATE & TIME: Mar 15/16/17, 17 Minutes

DURATION: IN LABS

EXAMINER: Borgersen/Kristel

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1. Let $\mathbf{v} = \langle 5, k, ak \rangle$ be a non-zero vector.

[2] (a) Find some real numbers a and k (or show no such values exists) so that \mathbf{v} is perpendicular to $\langle 8, 4, 3 \rangle$. Be sure to justify your answer.

[4] (b) Find some real numbers a and k (or show no such values exists) so that \mathbf{v} is the same direction as $\langle 3, -3, 6 \rangle$. Be sure to justify your answer. HINT: **Do not use a dot product to do this.**