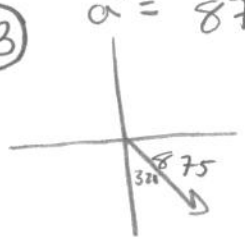
(73) $\vec{a} = 875\langle \cos 302^\circ, \sin 302^\circ \rangle$

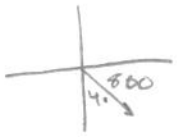


$\vec{a} + \vec{w} = \vec{g}$

$\vec{g} - \vec{a} = \vec{w}$

$\vec{w} = \langle 800\cos 310^\circ - 875\cos 302^\circ, 800\sin 310^\circ - $

$\vec{g} = 800\langle \cos 310^\circ, \sin 310^\circ \rangle$



$\vec{w} = \langle 50.55073, 129.20653 \rangle$

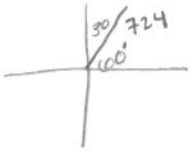
$|\vec{w}| = 138.743$ kph

$\tan\theta_c = \frac{129.20653}{50.55073}$

$\theta_c \sim 68.633^\circ$

N 21.367 E

(49) $\vec{a} = 724\langle \cos 60^\circ, \sin 60^\circ \rangle$



$\vec{a} + \vec{w} = \vec{g}$

$\vec{g} = \langle 724\cos 60^\circ + 32\cos 0^\circ, 724\sin 60^\circ + 32\sin 0$

$\vec{w} = 32\langle \cos 0^\circ, \sin 0^\circ \rangle$

$\vec{g} = \langle 394, 627.0024 \rangle$

$|\vec{g}| = 740.519$ kph

$\tan\theta_c = \frac{627.0024}{394}$

$\theta_c = 57.855^\circ$

N 32.145 E