Textbook – Vectors Review – Answers

Page 129 #10-14, 25, 26, 29, 30 and Page 692 #8, 9, 12

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10.) Vector subtraction problem. Subtract the opposite of the storm from the Heading due south.

$510 \, m$. Head $78.7^o \, S \, of \, W$

11.) $5 \, km$ northwest of the camp. Should head $53^o \, S \, of \, E$ to get back.

12.) $24.2 \, N \, at \, 72^o \, N \, of \, W$

13a.) $10\frac{m}{s} \, at \, 53^o \, from \, bank$ b.) $30 \, s$ c.) $180 \, m$

14a.) $34^o \, N$ or out from the shore.   b.) $90 \, s \, or \, 1.5 \, min$ c.) $540 \, m$ d.) same time.

25.) $78 \, km \, away \, at \, 43^o \, E \, of \, N$.

26a.) $110 \, N$ b.) $107 \, N \, at \, 19^o \, E \, of \, N$ c.) $96 \, N \, at \, 39^o \, E \, of \, N$ d.) $81 \, N \, at \, 60^o \, E \, of \, N$

e.) $30 \, N \, south \, or \, in \, direction \, of \, 70 \, N \, force$.

29.) $74 \, N \, at \, 253^o$

30.) $43 \, N \, at \, 43^o \, S \, of \, W$

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8.) $112\frac{m}{s} \, at \, 27^o \, W \, of \, N$

9.) $820 \, N \, at \, 52^o \, S \, of \, W$

12.) $200 \, N$