

Solutions to Homework Assignment 2

MATH 249

Section Stewart 6e 12.2, Page 777

1-4, 6, 7-25 odd, 26-29, 31-35, 37

23. $|8\hat{i} - \hat{j} + 4\hat{k}| = \sqrt{64 + 1 + 16} = 9$. The desired vector is $\frac{8}{9}\hat{i} - \frac{1}{9}\hat{j} + \frac{4}{9}\hat{k}$.
34. The weight of the chain is the magnitude of the sum of the vertical components of the two forces. This is $2|25 \sin 37| \approx 30.1$ N.