Name $\qquad$

## Vector Components

Find the vector components of the following problems: ( Show all of your work )
1.) $\quad 55.0$ Newtons at $25^{\circ}$
2.) $\quad 20 \mathrm{~m} / \mathrm{s}$ at $70^{\circ}$
3.) $\quad 4.0 \mathrm{~m}$ at $90^{\circ}$
4.) $\quad$ 17.0 Newtons at $135^{\circ}$
5.) $\quad 15 \mathrm{~m} / \mathrm{s}$ at $160^{\circ}$
6.) $\quad 125$ Newtons at $220^{\circ}$
7.) $\quad 3.5 \mathrm{~cm}$ at $330^{\circ}$
8.) $\quad 9.8 \mathrm{~m} / \mathrm{s} / \mathrm{s}$ at $270^{\circ}$
9.) $\quad 40 \mathrm{~m} / \mathrm{s}$ at $78^{\circ}$
10.) $\quad 3500 \mathrm{~N}$ at $245^{\circ}$

Bonus: If you know how to add two vectors that are in a straight line like 30 N at $0^{\circ}$ and 50 N at $0^{\circ}(=80$ N at $0^{\circ}$ ) and knowing how to compute the vector components of any vector. Show me a way to add the following two vectors. Also give the answer to the problem. ( do on back )

> 45 N at $30^{\circ}$
> 155 N at $70^{\circ}$

