Graphical Vector Addition

Name: ___________________________ Date: ____________

Using a ruler, protractor, and the given vectors to answer the following problems.

\[
\begin{align*}
A &= 5.0 \@ 30 \text{ degrees} & B &= 6.0 \@ 90 \text{ degrees} & C &= 4.0 \@ 210 \text{ degrees} \\
D &= 8.0 \@ -45 \text{ degrees} & E &= 4.0 \@ 180 \text{ degrees} & F &= 5.0 \@ 135 \text{ degrees}
\end{align*}
\]

Work no more than three problems per sheet. On each problem choose a scale for your drawing.

On each drawing give you scale so I can check your work. For instance 2 centimeters = 1 unit.

Choose a scale that will make your drawings large enough to obtain answers with 5% precision.

If the exact answer is 4.0 @ 30 degrees then 4.2 @ 31 degrees will be counted correct, but 5.0 @ 35 degrees will be counted wrong.

1. Find \(A + B\) 
2. \(E + A + C + B\)
3. \(3A\)

4. \(2B - F\)
5. \(D + F + B + E\)
6. \(D - 2A + C\)