

Graphically Adding Vectors

Page 1—Instructions and Vector information. Path information at bottom of page.

Page 2—blank grid paper.

Page 3—key to ex 1

Page 4—key to ex 2

Disclaimer: Through the use of pdf files, I hope that the pages have the same dimensions as mine, but realizing that each printer could be different, it is possible that your measurements could be off from my key.

Instructions: Start at the given grid point. Then perform the vector operations to find the ending point. Your resultant is from the starting point to the ending point. Your answer should be given as a measurement of the resultant (with units) and the resultant's direction. I wrote these examples so that each vector locks onto a grid point. In an actual example, this may or may not be true. Do not assume this.

Example 1:

Given Vectors:

A = 2.8 cm at 270° C = 5.25 cm at 135°

B = 5 cm at 30° D = 1.6 cm at 29.5°

Graph: $2\mathbf{B} - 2\mathbf{A} + \mathbf{C} - 4\mathbf{D}$ Starting at j9

Example 2:

Given Vectors:

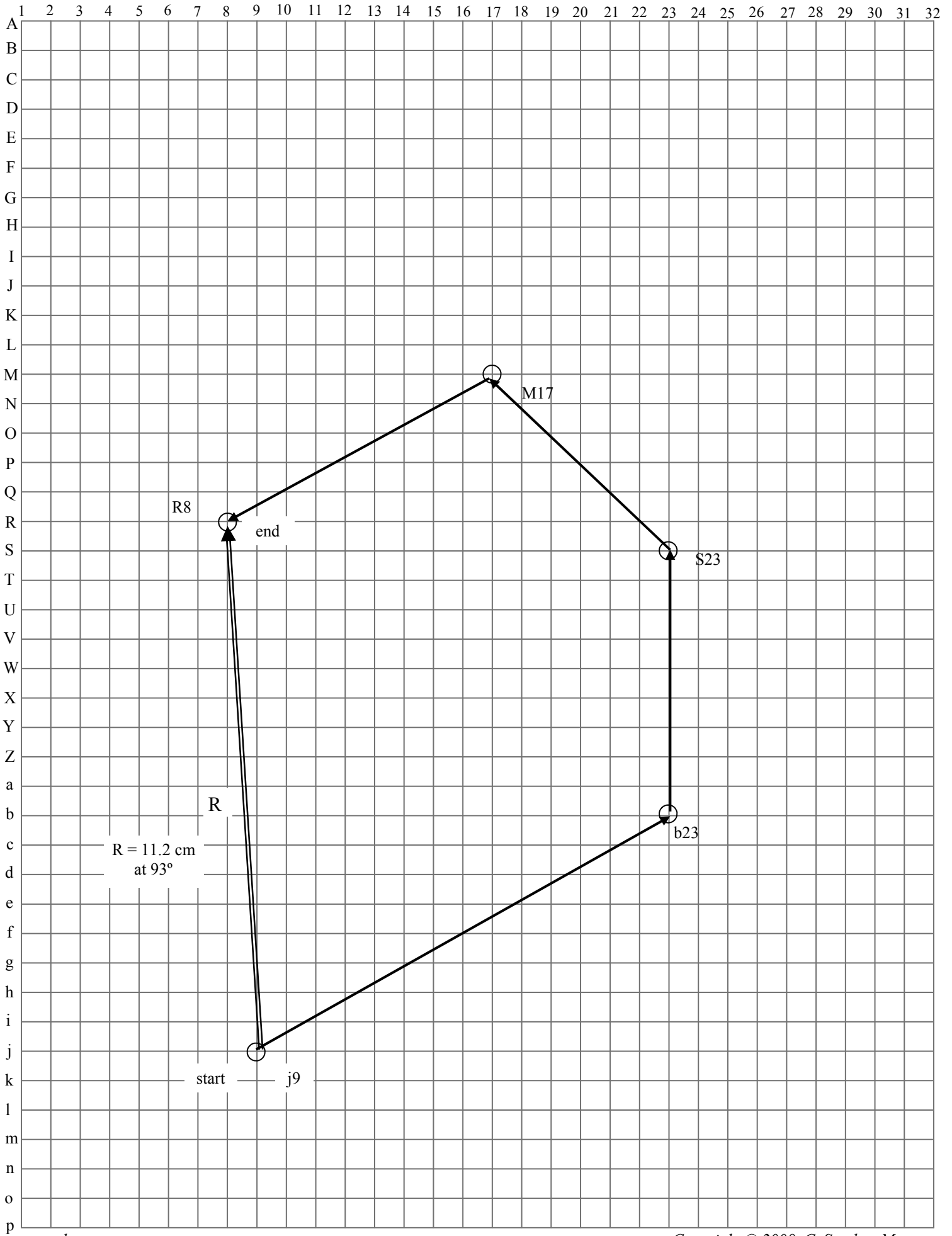
A = 5.7 cm at 103° C = 2.5 cm at 156°

B = 5.1 cm at -104° D = 4.35 cm at 180°

Graph: $-3\mathbf{C} + \mathbf{B} + 2\mathbf{D} - \mathbf{A}$ Starting at F14

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
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Key Ex 1: $2B - 2A + C - 4D$ Starting at $j9$



Key Ex 2: $-3C + B + 2D - A$ Starting at F14

