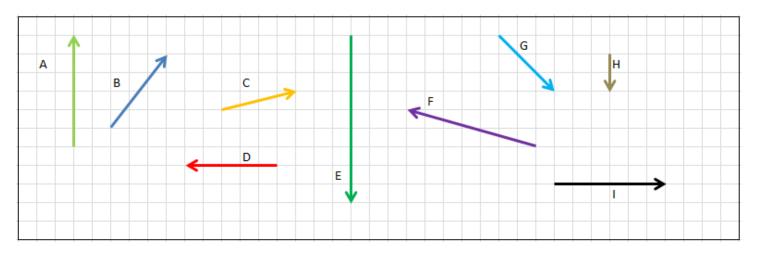
Practice Problems – Adding Vectors

A. Perrone



Work

1.
$$A + C$$
 $(6j) + (4i+1j) = 4i+7j$

Magnitude

$$\sqrt{(4^2 + 7^2)} = 8.1$$

$$\sqrt{(6^2 + -4^2)} = 7.2$$

Direction

$$tan^{-1}$$
 (7/4) = 60.3° north of east

$$\sqrt{(6^2 + -4^2)} = 7.2$$
 tan⁻¹ (4/6) = 33.7° south of east

Add the vectors geometrically. Label the direction (angle) of the resultant vector.

