

## Solutions

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**2.1** Add the x-components:  $4+1=5$ .

**2.2** Magnitude= $\sqrt{4^2+3^2}=5$ .

**2.3** Add the y-components:  $1+3=4$ .

**3.1** False.  $A=(1,2)$ ,  $B=(5,5)$  give  $AB=(4,3)$  and  $BA=(-4,-3)$ . Reversing direction negates the vector.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.