

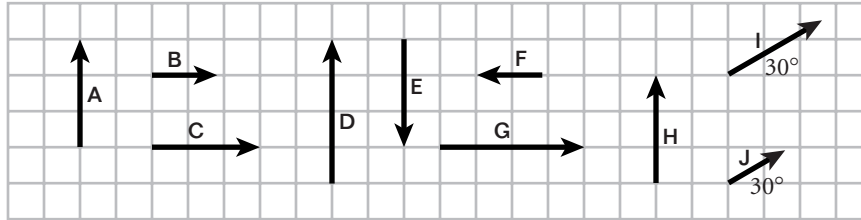
**Two-Dimensional
Motion and
Vectors**

HOLT PHYSICS

Diagram Skills

Introduction to Vectors

Use the following vectors to answer the questions.



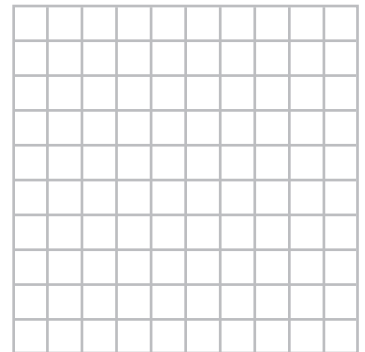
- | | | | | |
|---------|---------|---------|---------|---------|
| A = 3 m | C = 3 m | E = 3 m | G = 4 m | I = 3 m |
| B = 2 m | D = 4 m | F = 2 m | H = 3 m | J = 2 m |

- Which vectors have the same magnitude?

- Which vectors have the same direction?

- Which arrows, if any, represent the same vector?

- In the space provided, construct and label a diagram that shows the vector sum $2\mathbf{A} + \mathbf{B}$. Construct and label a second diagram that shows $\mathbf{B} + 2\mathbf{A}$.



- In the space provided, construct and label a diagram that shows the vector difference $\mathbf{A} - (\mathbf{B}/2)$. Construct and label a second diagram that shows $(\mathbf{B}/2) - \mathbf{A}$.

