Example:

a) Find the rise and the run for line segment AB.

b) Find the slope of line segment AB.

c) Describe the direction of line segment AB.

d) Use the slope to find the other endpoint of a line segment that has B as one endpoint, and the same slope as segment AB, but does not have A as the other endpoint.
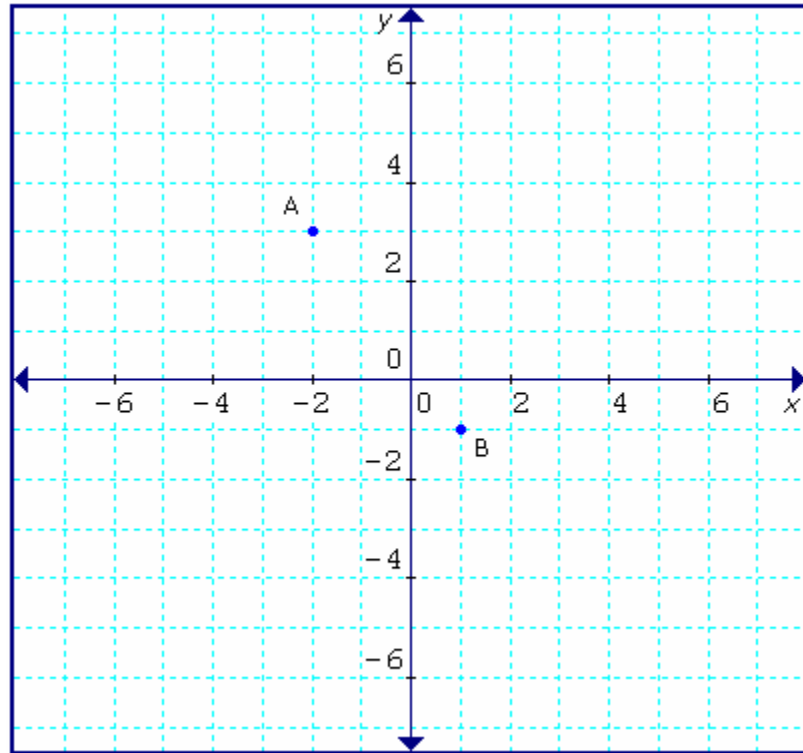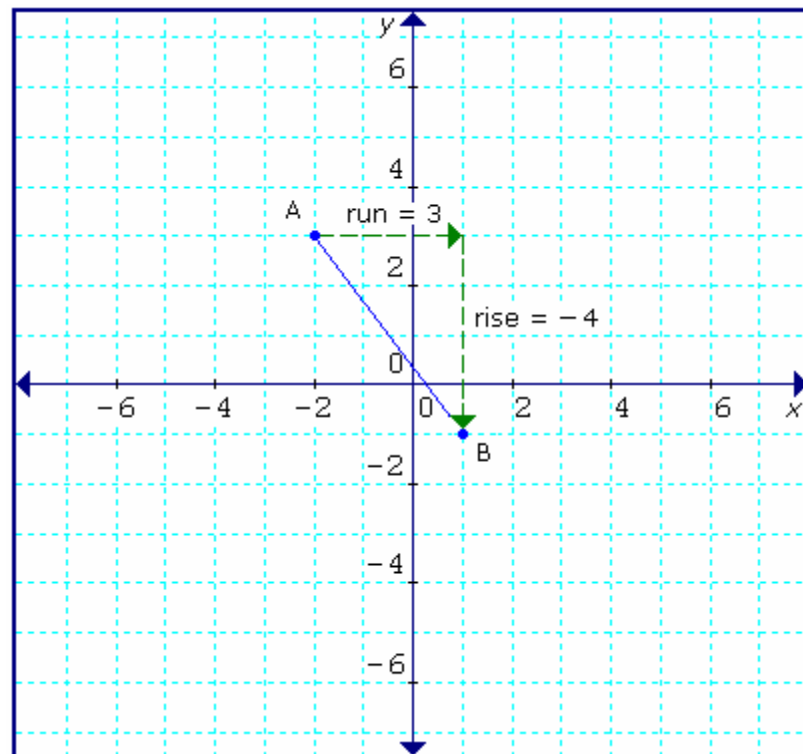
Solution:

a) The rise is −4. The run is 3.

b) $m = \dfrac{\text{rise}}{\text{run}}$

$= \dfrac{-4}{3}$

$= -\dfrac{4}{3}$

c) The direction is down 4 units as you go to the right 3 units.

d) Start at point B. Go right 3 units, then, down 4 units to arrive at $(4, -5)$. Answers may vary.
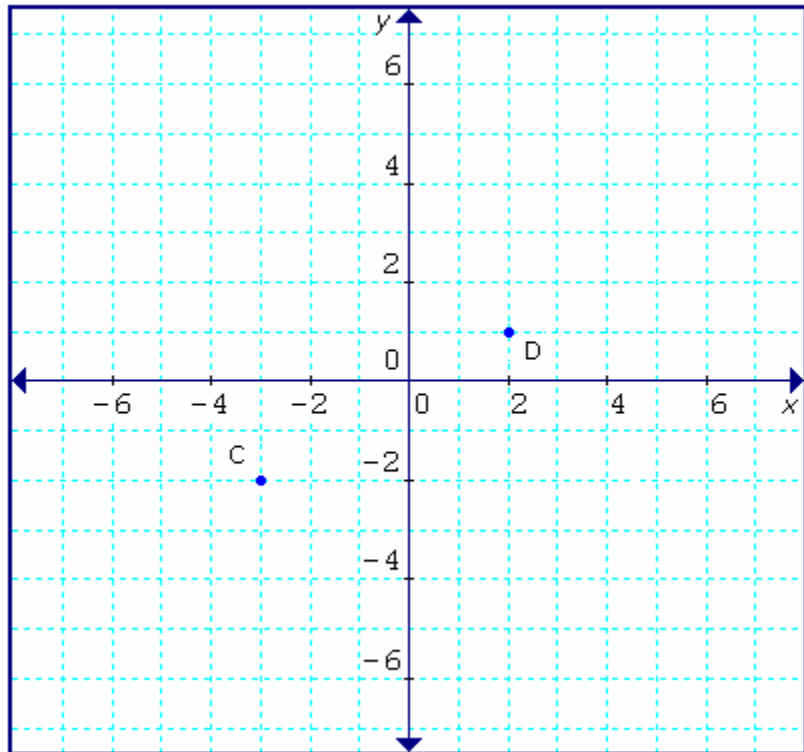
Practice:

1. a) Find the rise and the run for line segment CD.

b) Find the slope of line segment CD.

c) Describe the direction of line segment CD.

d) Use the slope to find another endpoint of a line segment that has C as one endpoint and the same slope as segment CD, but does not have D as the other endpoint.

Answers:

1. a) The rise is 3. The run is 5.

b) The slope is $\dfrac{3}{5}$.

c) The direction is up 3 units as you go to the right 5 units.

d) Answers may vary. One possible answer is $(-8, -5)$.