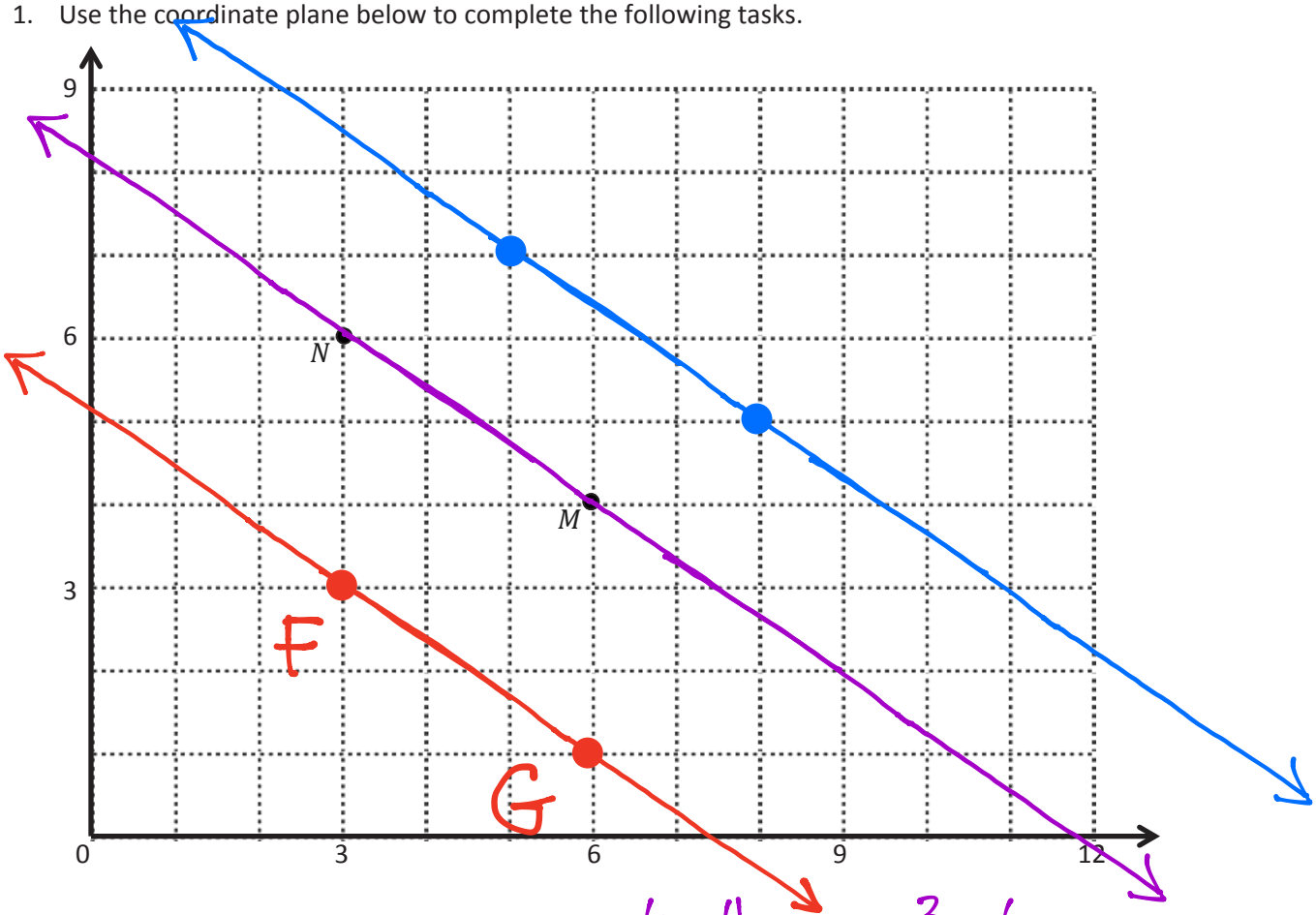
Name _____ Date _____

1. Use the coordinate plane below to complete the following tasks.



a. Identify the locations of M and N. M: (6, 4) N: (3, 6)

b. Draw $\overleftrightarrow{MN}$.

c. Plot the following coordinate pairs on the plane.

J: (5, 7) K: (8, 5)

d. Draw $\overleftrightarrow{JK}$.

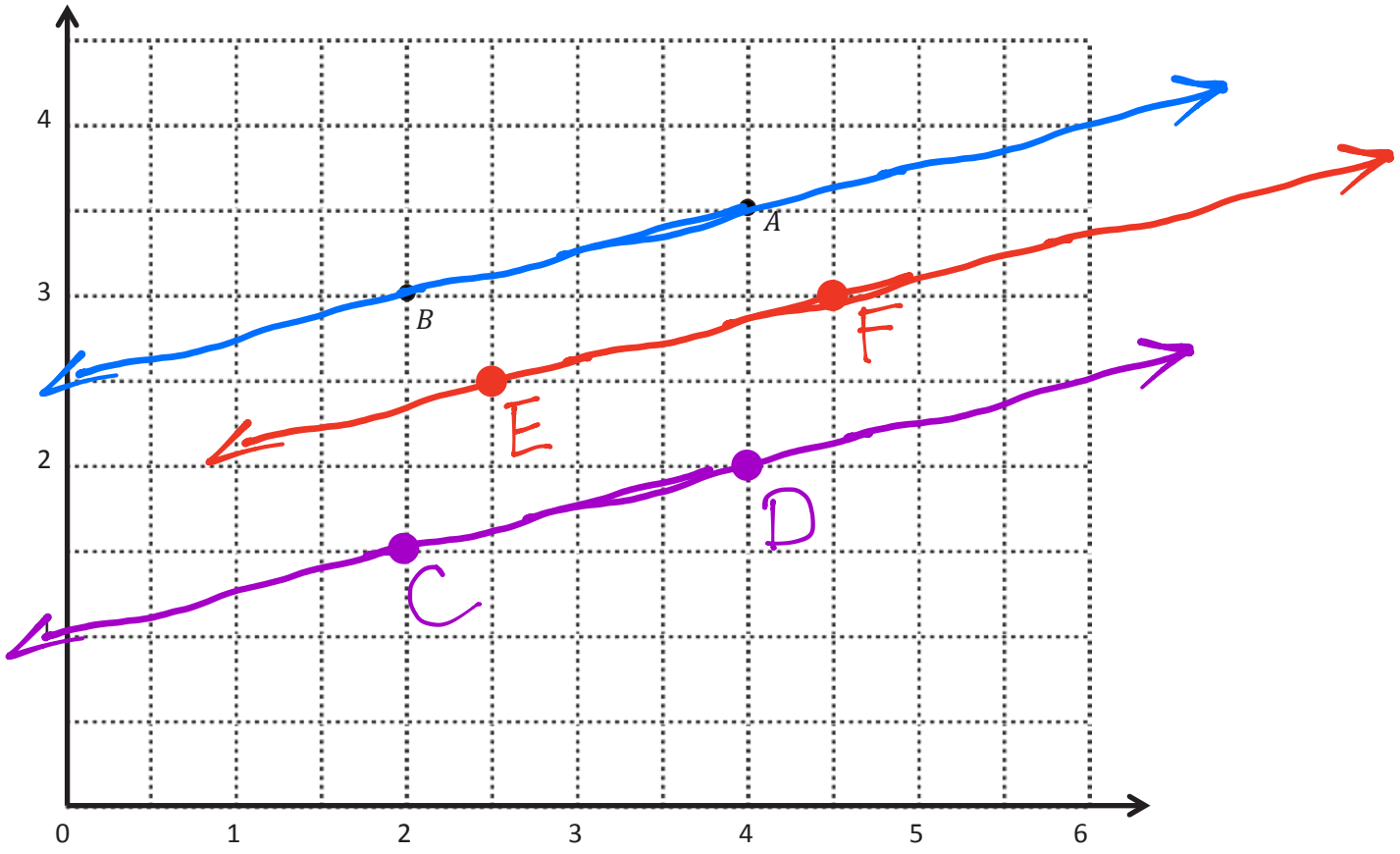
e. Circle the relationship between $\overleftrightarrow{MN}$ and $\overleftrightarrow{JK}$. $\overleftrightarrow{MN} \perp \overleftrightarrow{JK}$ $\overleftrightarrow{MN} \parallel \overleftrightarrow{JK}$

f. Give the coordinates of a pair of points, F and G, such that $\overleftrightarrow{FG} \parallel \overleftrightarrow{MN}$.

(Answers will vary.) F: (3, 3) G: (6, 1)

g. Draw $\overleftrightarrow{FG}$.

2. Use the coordinate plane below to complete the following tasks.



a. Identify the locations of A and B. A: (4, $3\frac{1}{2}$) B: (2, 3)

b. Draw $\overleftrightarrow{AB}$.

c. Generate coordinate pairs for C and D, such that $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$.

(Answers will vary.) C: (2, $1\frac{1}{2}$) D: (4, 2)

d. Draw $\overleftrightarrow{CD}$.

e. Explain the pattern you used when generating coordinate pairs for C and D. I lowered A and B by 3 units.

f. Give the coordinates of a point, F, such that $\overleftrightarrow{AB} \parallel \overleftrightarrow{EF}$.

E: $(2\frac{1}{2}, 2\frac{1}{2})$ F: ($4\frac{1}{2}$, 3)

g. Explain how you chose the coordinates for F.

(Answers will vary.) I noticed E was diagonal to B, so I made F diagonal to A.