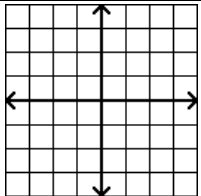
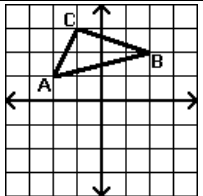
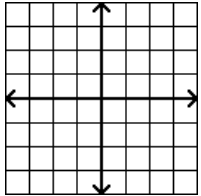
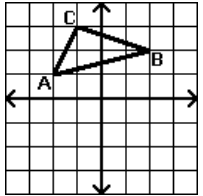
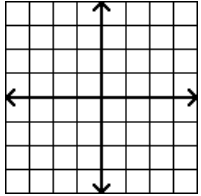
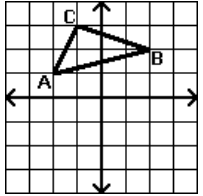
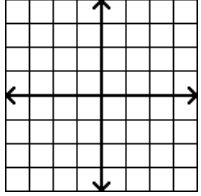
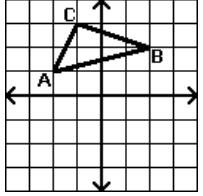
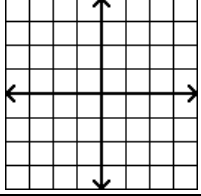
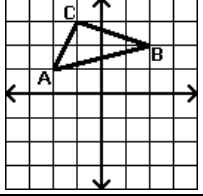
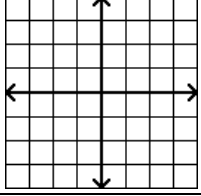
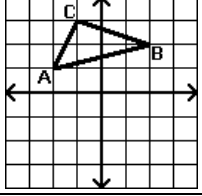
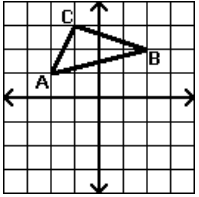
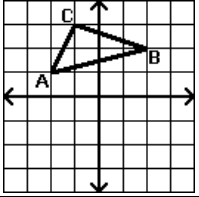
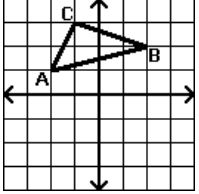


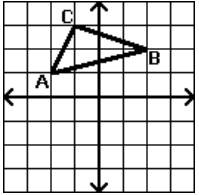
REFLECTIONS - SUMMARY & PRACTICE

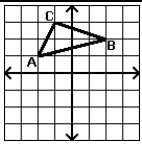
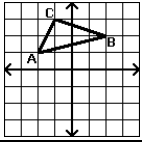
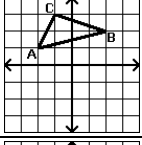
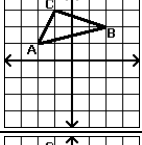
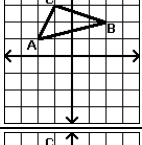
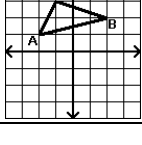
Reflection across...	Graph of the line	Describe in words	Describe in symbols	Example
x-axis			$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>
y-axis			$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>
x = # (ex: x = 1)		just count!		<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>
y = # (ex: y = 1)		just count!		<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>
y = x			$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>
y = -x			$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>

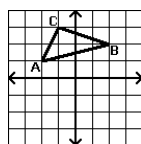
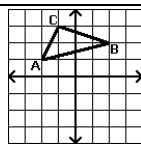
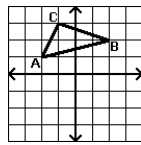
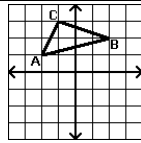
ROTATIONS - SUMMARY & PRACTICE

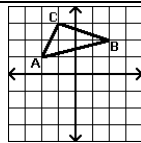
Rotation...	Describe in words	Describe in symbols	Example
90° CW about the <u>origin</u>		$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>
180° about the <u>origin</u>		$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>
270° CW about the <u>origin</u> (same as _____)		$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>

TRANSLATIONS - SUMMARY & PRACTICE

Translation by...	Describe in words	Describe in symbols	Example
$\langle 1, -2 \rangle$		$(x, y) \rightarrow$	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>A: (,) A': (,)</p> <p>B: (,) B': (,)</p> <p>C: (,) C': (,)</p> </div> </div>

Reflection across...	Example	
x-axis $(x, y) \rightarrow (x, -y)$		A: (-2, 1) A': (-2, -1) B: (2, 2) B': (2, -2) C: (-1, 3) C': (-1, -3)
y-axis $(x, y) \rightarrow (-x, y)$		A: (-2, 1) A': (2, 1) B: (2, 2) B': (-2, 2) C: (-1, 3) C': (1, 3)
x = # (ex: x = 1) just count!		A: (-2, 1) A': (4, 1) B: (2, 2) B': (1, 2) C: (-1, 3) C': (3, 3)
y = # (ex: y = 1) just count!		A: (-2, 1) A': (-2, 1) B: (2, 2) B': (2, 0) C: (-1, 3) C': (-1, -1)
y = x $(x, y) \rightarrow (y, x)$		A: (-2, 1) A': (1, -2) B: (2, 2) B': (2, 2) C: (-1, 3) C': (3, -1)
y = -x $(x, y) \rightarrow (-y, -x)$		A: (-2, 1) A': (-1, 2) B: (2, 2) B': (-2, -2) C: (-1, 3) C': (-3, 1)

Rotation...	Example	
90° CW about the origin (same as 270° CCW) $(x, y) \rightarrow (y, -x)$		A: (-2, 1) A': (1, 2) B: (2, 2) B': (2, -2) C: (-1, 3) C': (3, 1)
180° about the origin $(x, y) \rightarrow (-x, -y)$		A: (-2, 1) A': (2, -1) B: (2, 2) B': (-2, -2) C: (-1, 3) C': (1, -3)
270° CW about the origin (same as 90° CCW) $(x, y) \rightarrow (-y, x)$		A: (-2, 1) A': (-1, -2) B: (2, 2) B': (-2, 2) C: (-1, 3) C': (-3, -1)
180° about (-1, 1) count and rotate!		A: (-2, 1) A': (0, 1) B: (2, 2) B': (-4, 0) C: (-1, 3) C': (-1, -1)

Translation by...	Example	
(1, -2) $(x, y) \rightarrow (x + 1, y - 2)$		A: (-2, 1) A': (-1, -1) B: (2, 2) B': (3, 0) C: (-1, 3) C': (0, 1)