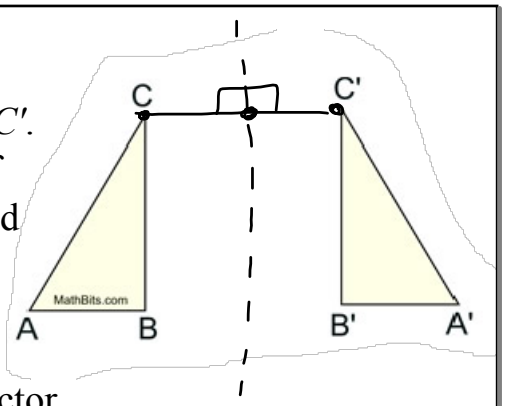
DO NOW

Given ΔABC and its reflection $\Delta A'B'C'$. You are asked to construct the line of reflection. Which of the choices listed below will be the FIRST step in this process?



[1] Construct a perpendicular bisector

[2] Construct a perpendicular from C to $B'C'$

[3] Bisect $B'C'$

[4] Draw a segments connecting C and C'

Oct 12-9:39 AM

A **translation** "slides" all of the points of a figure the same distance in the same direction

In words: 3 units to the right and 4 units down

Coordinate Notation: $(x,y) \rightarrow (x + 3, y - 4)$

OR

$T_{3,-4}$

3 → x-direction

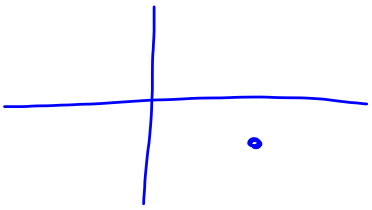
-4 → y-direction

Nov 17-9:58 AM

1) What is the image of point (4, -2) under the translation that shifts (x,y) to (x + 1, y - 2)?

$(4+1, -2-2)$

$\boxed{(5,-4)}$



2) A translation moves $P(1,3)$ to $P'(-2, 5)$. What are the coordinates of the image of point (6,1) under the same translation?

$T_{-3,2}$

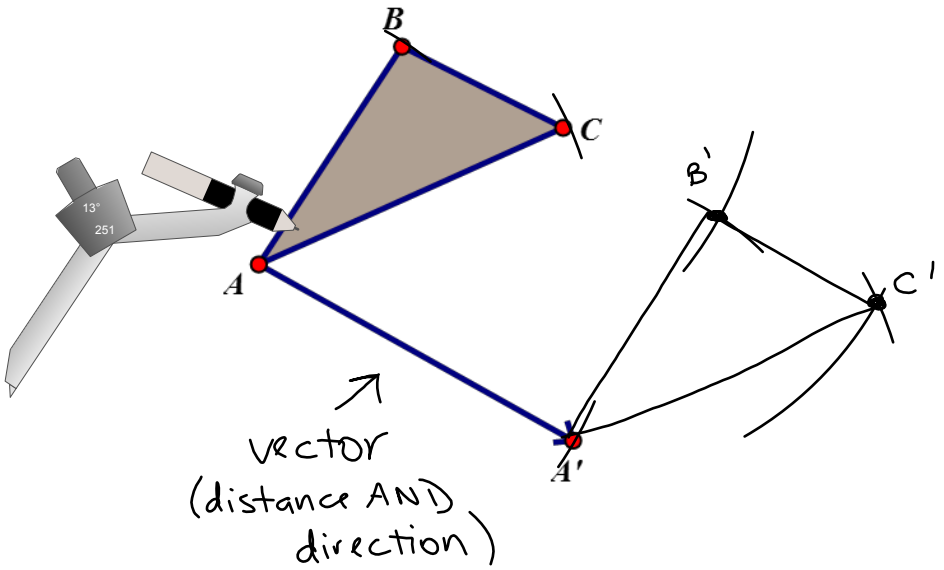
$P(1,3) \rightarrow (x-3, y+2) \rightarrow P(-2, 5)$

$(6,1) \rightarrow (6-3, 1+2) \rightarrow \boxed{(3,3)}$

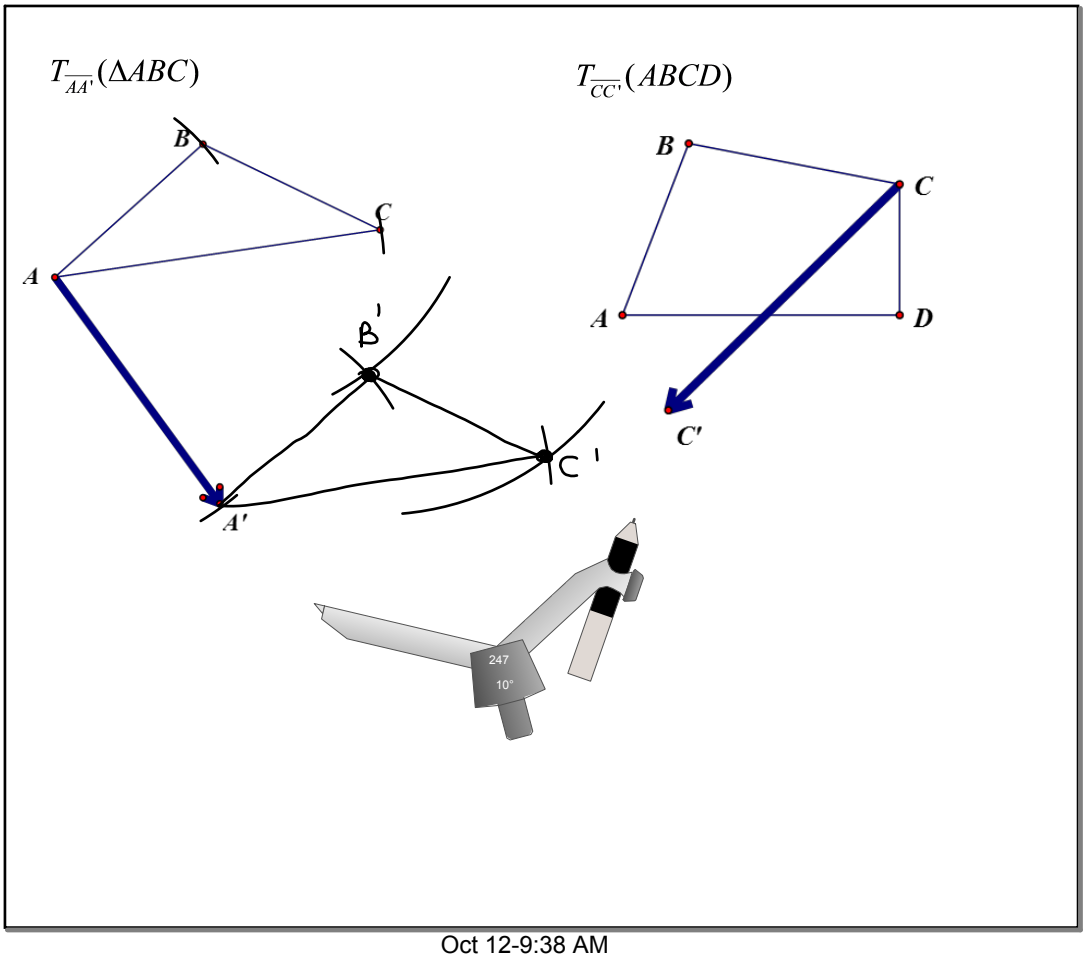
Nov 17-10:08 AM

TRANSLATION PROPERTIES

1. Map lines to parallel lines (only true of translations). → original // image
2. Preserve angles (true of all rigid motions).
3. Preserve length/distance (true of all rigid motions).



Oct 11-9:57 AM


$T_{\overline{AA'}}(\Delta ABC)$
B
C
A
B'
C'
A'
247
10°
$T_{\overline{CC'}}(ABCD)$
B
C
A
D
C'

Oct 12-9:38 AM