

Translation

05/01/2021

Learning Objectives:

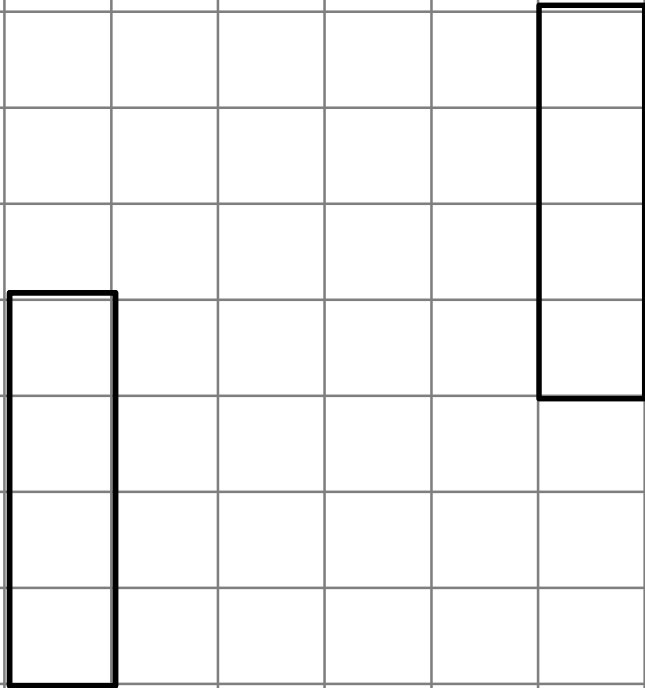
- Know what translation means
- Understand coordinate notation
- Able to translate shapes using coordinates



Translation

- A translation means to move a shape without changing its appearance
- The way a shape is translated can be given in words or using vector notation

Example: Translate the rectangle – right 5 squares, up 3 squares



Each corner of the shape must be put through the same translation

Translation

- Instead of writing “3 squares right, 2 squares up”, we can use co-ordinates instead
- “3 squares right, 2 squares up” = (3,2)
- +3 along the x axis and +2 along the y axis

Translation

How far left or right you
move

(x, y)

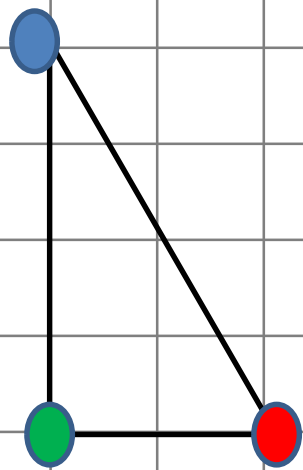
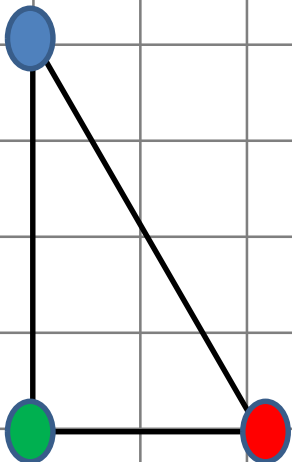
How far up or down you
move

- A negative number means moving left or down

Translation

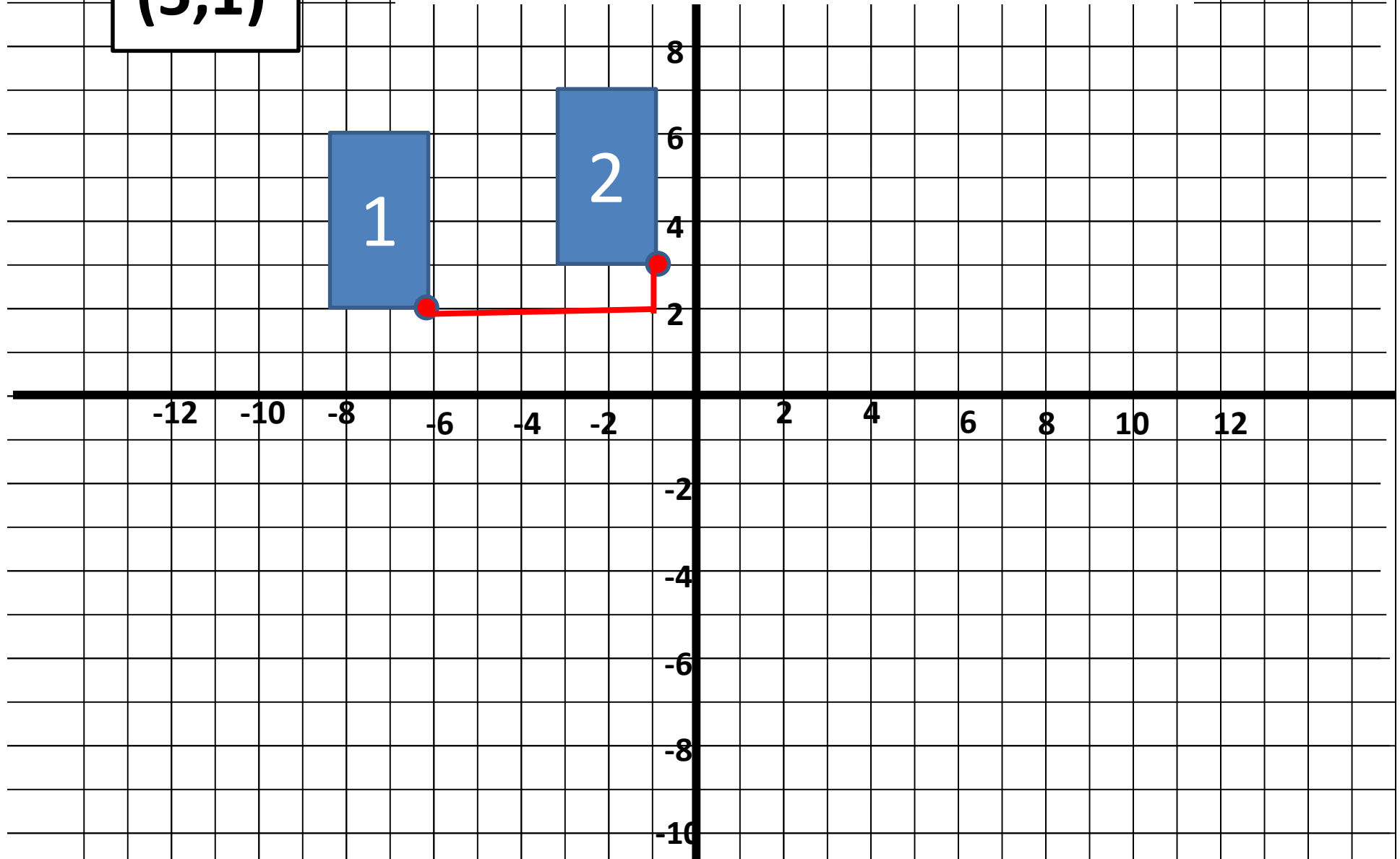
- $(4,6)$ means... “4 squares **right**, 6 squares **up**”
- $(-3,5)$ means.... “3 squares **left**, 5 squares **up**”
- $(6, -1)$ means... “6 squares **right**, 1 squares **down**”
- $(-4, -5)$ means... “4 squares **left**, 5 squares **down**”

Translate the triangle by $(7,-3)$



What Translation has happened here?

$(5,1)$



$(-5, -7)$

What Translation has happened here?

