Unit 3 - Transformations: 3.1, 3.2, 3.3
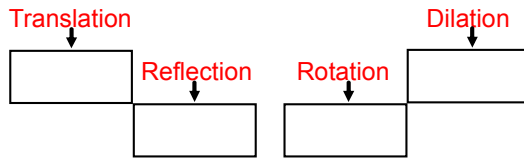
Translations & Reflections

Today's Learning Targets:

3.1 I can perform a translation.
3.2 I can perform a reflection.
3.3 I can write a rule to describe a translation or reflection.

BrainPop

Objective: Identify transformations including translation, rotation, reflection, and dilation

Translation

Reflection   Rotation

Dilation

Objective: Identify transformations including translation, rotation, reflection, and dilation

Translation –_____is moved the_____ _____in the_____; Left 9, Down 3

9

3

New
"   "

Original
"   "

Unit 3 - Transformations: 3.1, 3.2, 3.3

- Write the coordinates for triangle FGH.
- Translate the figure 5 down & 2 left.
- Write the new coordinates

Pre Image	Image
F (,)	F' (,)
G(,)	G'(,)
H(,)	H'(,)

How are the ordered pairs in FGH
related to the ordered pairs in F'G'H'?

RULE (x, y) -----> (,   )

"Coordinate Notation"

Writing a Rule:

→ right "_____"

← left "_____"

↑ up "_____"

↓ down "_____"

- The solid figure ABCD is the original image.
- Describe how the dotted figure A'B'C'D' was translated.

ABCD was translated:

_____ units _____

& _____ units _____.

Pre Image	Image
A (3 , 6)	A' ( )
B (7 , 6)	B' ( )
C (7 , 1)	C' ( )
D (3 , 1)	D' ( )

RULE (x, y) -----> (,   )

Unit 3 - Transformations: 3.1, 3.2, 3.3

Use coordinate notation to describe the translation:

a. 4 units left, 2 units down:

(x , y) → (x   , y   )

b. Describe the transformation that occurred between the image and pre-image.

A (3, 7) → A' (8, 4)

_____

_____

Objective: Identify transformations including translation, rotation, reflection, and dilation

Reflection -_____
_____

| New |
| "   " |

| Original |
| "   " |

Reflection or Flip: A reflection is a flip over a line. This line is a_____and is sometimes referred to as a_____.

3

Types of Reflections:

Reflecting in the x-axis:

Pre Image	Image
A (3 , 6)	A' ( )
B (5 , 3)	B' ( )
C (3 , 1)	C' ( )
D (2 , 3)	D' ( )

Types of Reflections:

Reflecting in the y-axis:

Pre Image	Image
A (3 , 6)	A' ( )
B (5 , 3)	B' ( )
C (3 , 1)	C' ( )
D (2 , 3)	D' ( )

Writing a Rule:
Reflect over X axis:

x _____, y _____

(x,y) → (,)

Reflect over Y axis:

y _____, x _____

(x,y) → (,)