

Summer Geometry Semester 2 Unit 3 Part II

Lesson 024 | Geometry | Geometric transformations and tessellations

https://www.youtube.com/watch?v=30Q50_yx8LA

Related review: exact coverage needs teacher confirmation.

Name: _____ Date: _____ Show your reasoning.

01

For $P=(7,6)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(-6,-10)$; dilation of scale 5 about the origin.

02

For $P=(2,14)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(8,-5)$; dilation of scale 5 about the origin.

03

For $P=(14,12)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(6,-11)$; dilation of scale 5 about the origin.

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04

For $P=(4,11)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(-7,-8)$; dilation of scale 4 about the origin.

05

For $P=(3,5)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(0,-2)$; dilation of scale 7 about the origin.

06

For $P=(12,5)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(2,-14)$; dilation of scale 2 about the origin.

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01

For $P=(7,6)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(-6,-10)$; dilation of scale 5 about the origin.

Reflect $(x,y) \rightarrow (y,x)$: $(6,7)$. Rotate $(x,y) \rightarrow (-y,x)$: $(-6,7)$. Translate: $(1,-4)$. Dilate: $(35,30)$.

02

For $P=(2,14)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(8,-5)$; dilation of scale 5 about the origin.

Reflect $(x,y) \rightarrow (y,x)$: $(14,2)$. Rotate $(x,y) \rightarrow (-y,x)$: $(-14,2)$. Translate: $(10,9)$. Dilate: $(10,70)$.

03

For $P=(14,12)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(6,-11)$; dilation of scale 5 about the origin.

Reflect $(x,y) \rightarrow (y,x)$: $(12,14)$. Rotate $(x,y) \rightarrow (-y,x)$: $(-12,14)$. Translate: $(20,1)$. Dilate: $(70,60)$.

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04

For $P=(4,11)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(-7,-8)$; dilation of scale 4 about the origin.

Reflect $(x,y) \rightarrow (y,x)$: $(11,4)$. Rotate $(x,y) \rightarrow (-y,x)$: $(-11,4)$. Translate: $(-3,3)$. Dilate: $(16,44)$.

05

For $P=(3,5)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(0,-2)$; dilation of scale 7 about the origin.

Reflect $(x,y) \rightarrow (y,x)$: $(5,3)$. Rotate $(x,y) \rightarrow (-y,x)$: $(-5,3)$. Translate: $(3,3)$. Dilate: $(21,35)$.

06

For $P=(12,5)$, find its image under: reflection across $y=x$; 90° counterclockwise rotation about the origin; translation by $(2,-14)$; dilation of scale 2 about the origin.

Reflect $(x,y) \rightarrow (y,x)$: $(5,12)$. Rotate $(x,y) \rightarrow (-y,x)$: $(-5,12)$. Translate: $(14,-9)$. Dilate: $(24,10)$.