



Identify Sequences of Transformations

● Check Understanding

Possible answer: A reflection across the y -axis followed by a translation 1 unit up

ACTIVITY ANSWERS

Figure E , reflect across the y -axis, Figure K , translate 1 unit right, Figure N ;

Figure J , rotate 90° clockwise, Figure B , translate 2 units right, Figure D ;

Figure M , reflect across the y -axis, Figure H , rotate 90° clockwise, Figure F ;

Figure O , rotate 90° clockwise, Figure C , reflect across the y -axis, Figure L ;

Figure P , translate 4 units down, Figure A , reflect across the x -axis, Figure G

●● Check Understanding

Possible answer: A reflection across the x -axis followed by a rotation 90° counterclockwise

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Figure B , rotate 180° then rotate 90° clockwise, Figure Q ;

Figure E , reflect across the y -axis then translate 1 unit right, Figure N ;

Figure H , rotate 180° then reflect across the x -axis, Figure R , or Figure R , rotate 180° then reflect across the x -axis, Figure H ;

Figure J , rotate 90° clockwise then translate 2 units right, Figure D ;

Figure K , reflect across the x -axis then reflect across the y -axis, Figure C ;

Figure M , reflect across the y -axis then rotate 90° clockwise, Figure F , or Figure F , reflect across the y -axis then rotate 90° clockwise, Figure M ;

Figure O , rotate 90° clockwise then reflect across the y -axis, Figure L ;

Figure P , translate 4 units down then reflect across the x -axis, Figure G ;

Figure S , reflect across the y -axis then rotate 180° , Figure A



Identify Sequences of Transformations *continued*

●●● Check Understanding

Possible answer: A rotation 180° around the origin followed by a translation 1 unit down, or a reflection across the y -axis followed by a reflection across the x -axis followed by a translation 1 unit down

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Figure *B* to Figure *Q*:

rotate 180° then rotate 90° clockwise, or rotate 90° counterclockwise;

Figure *E* to Figure *N*:

reflect across the y -axis then translate 1 unit right, or translate 1 unit left then reflect across the y -axis;

Figure *H* to Figure *R*:

rotate 180° then reflect across the x -axis, or reflect across the y -axis;

Figure *J* to Figure *D*:

rotate 90° clockwise then translate 2 units right, or translate 2 units up then rotate 90° clockwise;

Figure *K* to Figure *C*:

reflect across the x -axis then reflect across the y -axis, or rotate 180° ;

Figure *M* to Figure *F*:

reflect across the y -axis then rotate 90° clockwise, or rotate 90° clockwise then reflect across the x -axis;

Figure *O* to Figure *L*:

rotate 90° clockwise then reflect across the y -axis, or reflect across the x -axis then rotate 90° clockwise;

Figure *P* to Figure *G*:

translate 4 units down then reflect across the x -axis, or reflect across the x -axis then translate 4 units up;

Figure *S* to Figure *A*:

reflect across the y -axis then rotate 180° , or reflect across the x -axis



Identify Sequences of Transformations with Dilations

● Check Understanding

Possible answer: Dilation by a scale factor of 2 followed by a reflection across the y -axis.

ACTIVITY ANSWERS

Figure C , dilate by a scale factor of $\frac{1}{3}$, figure G , reflect across the x -axis, figure F

Figure E , dilate by a scale factor of 2, figure K , rotate 180° , figure O

Figure L , rotate 90° clockwise, figure A , dilate by a scale factor of $\frac{4}{3}$, figure M

Figure N , reflect across the y -axis, figure D , dilate by a scale factor of $\frac{1}{4}$, figure J

Figure P , translate 2 units down, figure B , dilate by a scale factor of $\frac{3}{2}$, figure H

●● Check Understanding

Possible answer: Dilation by a scale factor of $\frac{3}{2}$ followed by a translation 7 units to the right.

ACTIVITY ANSWERS

Figure B , dilate by a scale factor of $\frac{2}{3}$ then reflect across the x -axis, figure G

Figure C , dilate by a scale factor of $\frac{1}{3}$ then reflect across the x -axis, figure F

Figure E , dilate by a scale factor of 2 then rotate 180° , figure O

Figure K , translate 1 unit down then dilate by a scale factor of 3, figure A

Figure L , rotate 90° clockwise then dilate by a scale factor of $\frac{4}{3}$, figure M

Figure N , reflect across the y -axis then dilate by a scale factor of $\frac{1}{4}$, figure J

Figure P , translate 2 units down then dilate by a scale factor of $\frac{3}{2}$, figure H

Figure Q , dilate by a scale factor of $\frac{1}{2}$ then rotate 90° clockwise, figure D

Figure S , dilate by a scale factor of 4 then translate 2 units left, figure R



Identify Sequences of Transformations with Dilations *continued*

●●● Check Understanding

Possible answer: Dilate by a scale factor of $\frac{3}{2}$ followed by a rotation 90° clockwise.

ACTIVITY ANSWERS

Figure *B*, dilate by a scale factor of $\frac{2}{3}$ then reflect across the *x*-axis, figure *G*; Figure *B*, reflect across the *x*-axis then dilate by a scale factor of $\frac{2}{3}$, figure *G*

Figure *C*, dilate by a scale factor of $\frac{1}{3}$ then reflect across the *x*-axis, figure *F*; Figure *C*, reflect across the *x*-axis then dilate by a scale factor of $\frac{1}{3}$, figure *F*

Figure *E*, dilate by a scale factor of 2 then rotate 180° , figure *O*; Figure *E*, rotate 180° then dilate by a scale factor of 2, figure *O*

Figure *K*, translate 1 unit down then dilate by a scale factor of 3, figure *A*; Figure *K*, dilate by a scale factor of 3 then translate 3 units down, figure *A*

Figure *L*, rotate 90° clockwise then dilate by a scale factor of $\frac{4}{3}$, figure *M*; Figure *L*, dilate by a scale factor of $\frac{4}{3}$ then rotate 90° clockwise, figure *M*

Figure *N*, reflect across the *y*-axis then dilate by a scale factor of $\frac{1}{4}$, figure *J*; Figure *N*, dilate by a scale factor of $\frac{1}{4}$ then reflect across the *y*-axis, figure *J*

Figure *P*, translate 2 units down then dilate by a scale factor of $\frac{3}{2}$, figure *H*; Figure *P*, dilate by a scale factor of $\frac{3}{2}$ then translate 3 units down, figure *H*

Figure *Q*, dilate by a scale factor of $\frac{1}{2}$ then rotate 90° clockwise, figure *D*; Figure *Q*, rotate 90° clockwise then dilate by a scale factor of $\frac{1}{2}$, figure *D*

Figure *S*, dilate by a scale factor of 4 then translate 2 units left, figure *R*; Figure *S*, translate $\frac{1}{2}$ unit left then dilate by a scale factor of 4, figure *R*