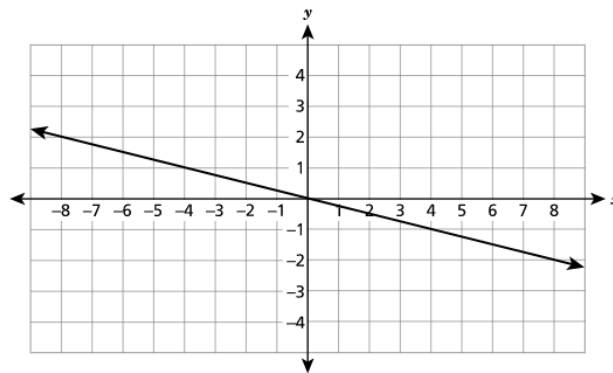


Patty has a flower box in the shape of a rectangular prism with interior dimensions that are 15 inches in length, 8 inches in width, and 6 inches in height. Patty will fill the flower box  $\frac{3}{4}$  full of soil. How many cubic inches of soil will be in the flower box?

- (A) 387
- (B) 516
- (C) 540
- (D) 720

Which equation represents the line shown on the coordinate plane below?



- (A)  $y = 4x$
- (B)  $y = -4x$
- (C)  $y = \frac{1}{4}x$
- (D)  $y = -\frac{1}{4}x$

Which expression is equivalent to  $(5^{-2})^5 \times 5^4$ ?

- (A)  $5^{12}$
- (B)  $5^7$
- (C)  $\frac{1}{5^6}$
- (D)  $\frac{1}{5^{40}}$

Which proportional relationship has the greatest rate of change?

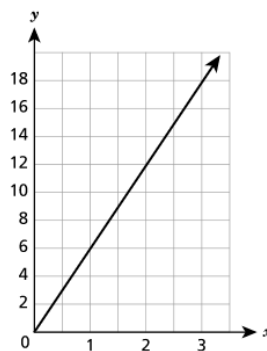
(A)  $y = 7x$

(C)

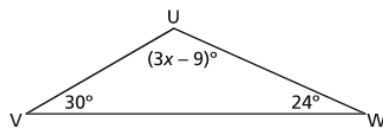
$x$	$y$
0	0
2	8
4	16
6	24

(B) The value of  $y$  increases by 12 for every increase of 4 in the value of  $x$ .

(D)



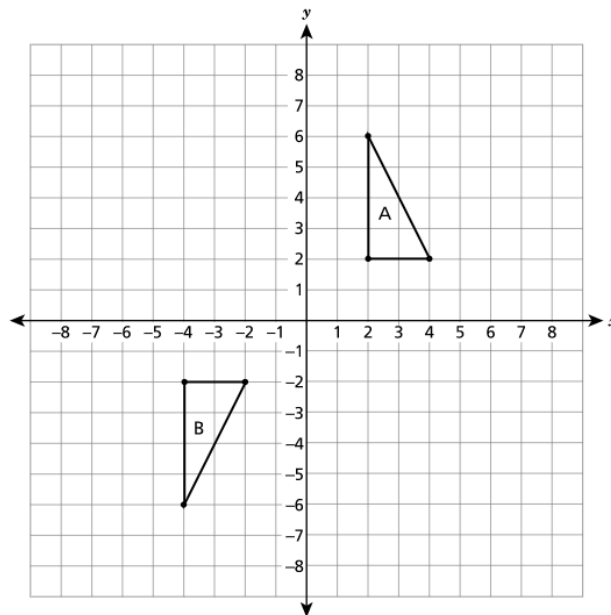
The measures of the angles in triangle UVW are shown in the diagram below.



What is the value of  $x$ ?

- (A) 21
- (B) 39
- (C) 45
- (D) 126

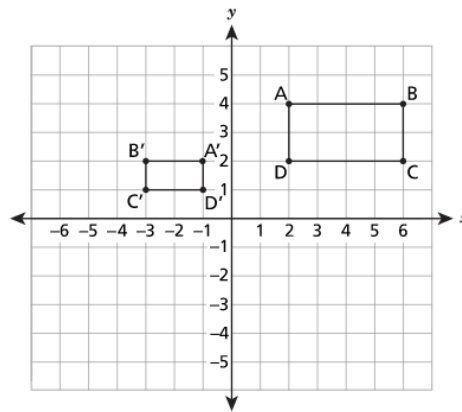
Triangle A and triangle B are graphed on the coordinate plane below.



Which sequence of transformations will map triangle A onto its congruent image, triangle B?

- (A) a reflection over the  $x$ -axis, then a reflection over the  $y$ -axis
- (B) a translation 8 units down, then a reflection over the  $y$ -axis
- (C) a reflection over the  $x$ -axis, then a translation 6 units to the left
- (D) a rotation  $90^\circ$  clockwise about the origin, then a translation 6 units to the left

Rectangle  $A'B'C'D'$  is similar to rectangle  $ABCD$ , as shown on the coordinate plane below.



Which sequence of transformations maps rectangle  $ABCD$  onto rectangle  $A'B'C'D'$  ?

- (A) a translation 8 units to the left, then a dilation by a scale factor of  $\frac{1}{2}$  with a center of dilation at the origin
- (B) a reflection over the  $y$ -axis, then a dilation by a scale factor of  $\frac{1}{2}$  with a center of dilation at the origin
- (C) a dilation by a scale factor of  $\frac{1}{2}$  with a center of dilation at the origin, then a  $90^\circ$  counterclockwise rotation about the origin
- (D) a  $90^\circ$  counterclockwise rotation about the origin, then a dilation by a scale factor of  $\frac{1}{2}$  with a center of dilation at the origin



