

- 3 What is the value of  $5^{-4} \div 5^{-1}$ ? Give your answer without exponents. Write your answer in the space provided. Write **only** your answer.

- 4 Which tables of values represent functions? Select **all** that apply.

**A**

<b>x</b>	1	3	5	7	9
<b>y</b>	4	4	4	4	4

**B**

<b>x</b>	-3	-2	0	2	3
<b>y</b>	6	8	4	7	2

**C**

<b>x</b>	0	3	5	3	7
<b>y</b>	0	-1	-2	-3	-4

**D**

<b>x</b>	2	1	0	1	2
<b>y</b>	5	4	3	2	1

**E**

<b>x</b>	3	3	3	3	3
<b>y</b>	4	6	8	10	12

- 5 Mr. Cooper wants to lengthen each side of a square animal pen by the same length. This equation represents the perimeter  $P$ , in feet, of the animal pen when Mr. Cooper lengthens each side by  $f$  feet.

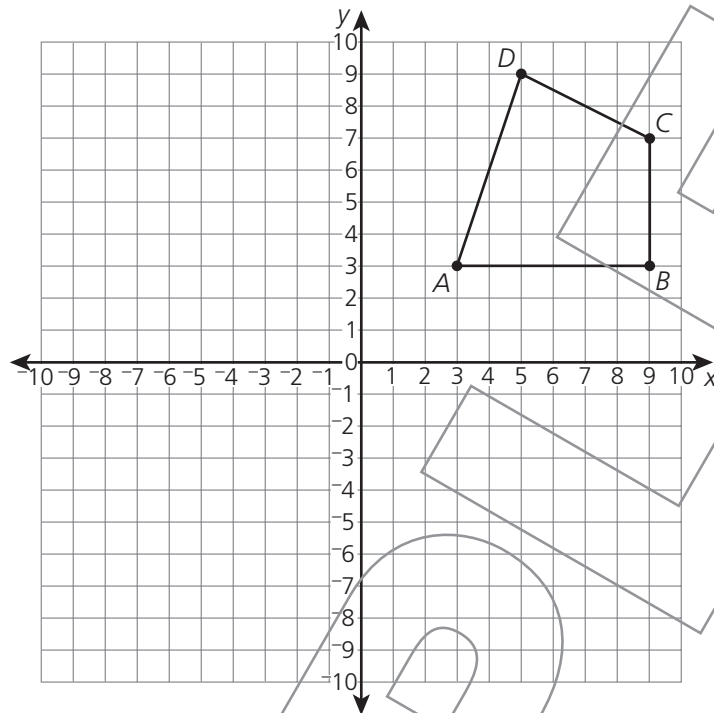
$$P = 4(f + 6)$$

By how many feet should Mr. Cooper lengthen each side so that the larger animal pen has a perimeter of 68 feet? Write your answer in the box.

 feet

GO ON →

31 Look at figure  $ABCD$  on this coordinate plane.



**Part A**

Figure  $ABCD$  is dilated by a scale factor of  $\frac{1}{2}$  centered at point  $A$ , and is then rotated  $90^\circ$  clockwise around point  $A$  to make figure  $A'B'C'D'$ . Draw figure  $A'B'C'D'$  on the coordinate plane.

**Part B**

Figure  $A'B'C'D'$  is reflected across the  $x$ -axis and then dilated by a scale factor of 3 centered at point  $C'$  to make figure  $A''B''C''D''$ .

What are the coordinates of figure  $A''B''C''D''$ ? Write your answers in the boxes.

Point  $A''$  (  ,  )

Point  $B''$  (  ,  )

Point  $C''$  (  ,  )

Point  $D''$  (  ,  )

GO ON →

### Part C

Circle an option from each set to correctly complete the statement.

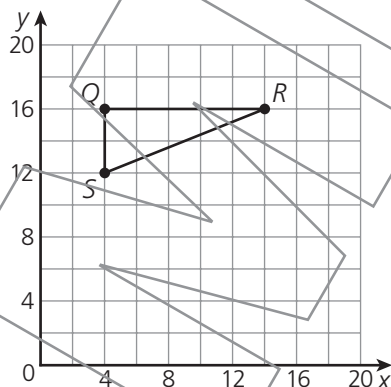
Figures  $ABCD$ ,  $A'B'C'D'$ , and  $A''B''C''D''$  are   because they are    of each other, which makes their side lengths  .

### Part D

Circle an option from each set to correctly complete the statement.

If figure  $A''B''C''D''$  is dilated by a scale factor of    , it is congruent to figure  .

- 32** Triangle  $QRS$  will be dilated by a factor of  $\frac{5}{2}$  to form its image, triangle  $Q'R'S'$ .



What will be the length, in units, of  $\overline{Q'R'}$ ? Write your answer in the box.

units

**STOP**