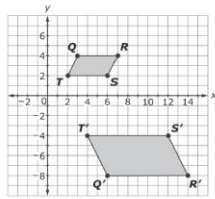


1)

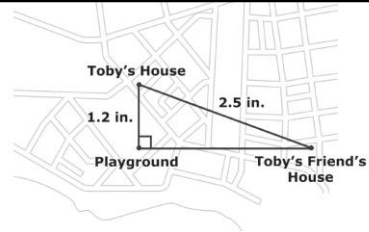
Quadrilateral  $QRST$  and its image,  $Q'R'S'T'$ , are shown.



What is the sequence of transformations that results in quadrilateral  $QRST$  being mapped onto quadrilateral  $Q'R'S'T'$ ?

- A. reflection over the  $x$ -axis, followed by a dilation about the origin by a scale factor of 2
- B.  $90^\circ$  clockwise rotation about the origin, followed by a dilation about the origin by a scale factor of 2
- C. dilation about the origin by a scale factor of 2, followed by a translation 2 units right and then 2 units down
- D.  $270^\circ$  counterclockwise rotation about the origin, followed by a dilation about the origin by a scale factor of 2

2)

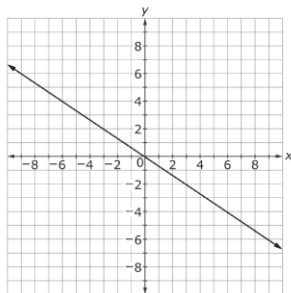


Which expression represents the distance, in inches, between Toby's friend's house and the playground?

- A.  $\sqrt{2.5 - 1.2}$
- B.  $\sqrt{2.5^2 - 1.2^2}$
- C.  $\sqrt{2.5 + 1.2}$
- D.  $\sqrt{2.5^2 + 1.2^2}$

3)

The graph displays a linear function.



Write the equation of the linear function in the form  $y = mx + b$ .

4)

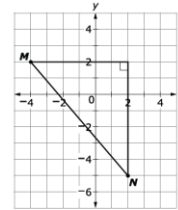
Presley fills a cup in the shape of a cone with water. The cup has a diameter of 3.6 inches and a height of 6 inches. What is the volume, in cubic inches, of water Presley will use to completely fill the cup?

5) Select **all** equations that have infinitely many solutions.

- A.  $2x + 5 = 4 + 2x + 1$
- B.  $5x - 5 = 11x + 2 - 1$
- C.  $3x + 2 - 2x = x + 2$
- D.  $4x + 5 = -4x + 5$
- E.  $3x + 4 = 3 + 3x + 1$

6)

The points  $M(-4, 2)$  and  $N(2, -5)$  are plotted on the coordinate plane.



Select **all** expressions that represent the distance between points  $M$  and  $N$ .

- A.  $7^2 - 6^2$
- B.  $\sqrt{85}$
- C.  $\sqrt{36 + 49}$
- D.  $\sqrt{7 + 6}$
- E.  $\sqrt{13}$

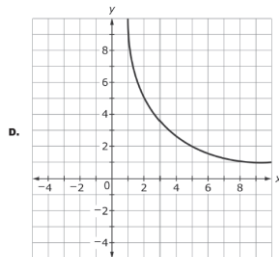
7)

Select **all** the functions that are **not** linear.

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

B.  $y = \frac{1}{2}(x-1) + 3x$

C.  $y = 3x(x-2) + 5$



8)

The table represents Sarah's recorded earnings for her small custom paintings.

Number of Paintings	Earnings (dollars)
3	\$18
7	\$42
12	\$72

If Sarah wants to increase her earnings by 50% for each painting, what equation would represent her earnings?

- A.  $y = 3x$
- B.  $y = 6x$
- C.  $y = 9x$
- D.  $y = 12x$