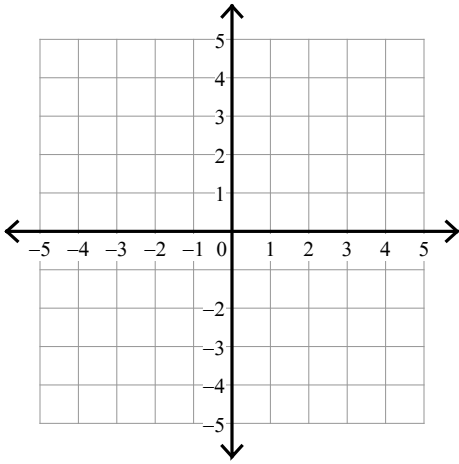


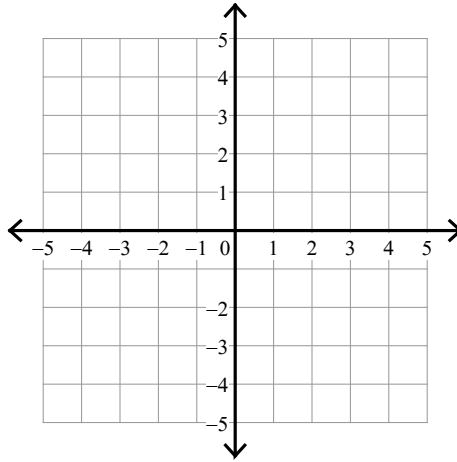
## Review for Final Exam #1 - 2015

Solve each system by graphing.

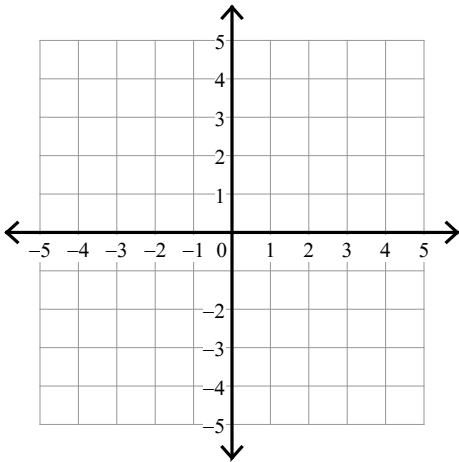
$$1) \begin{aligned} y &= x + 2 \\ y &= 4x - 4 \end{aligned}$$



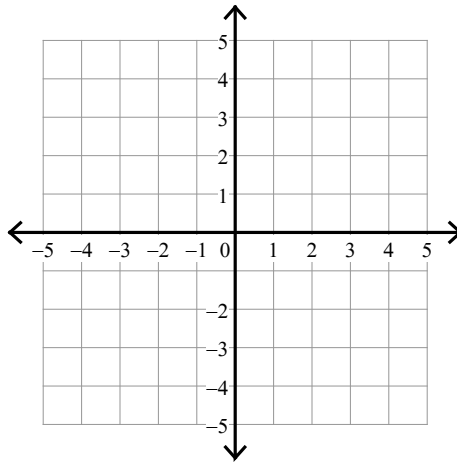
$$2) \begin{aligned} y &= -\frac{2}{3}x + 2 \\ y &= -\frac{2}{3}x - 4 \end{aligned}$$



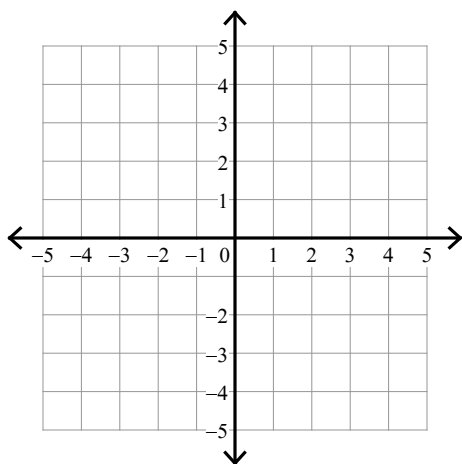
$$3) \begin{aligned} y &= \frac{1}{2}x + 3 \\ y &= 3x - 2 \end{aligned}$$



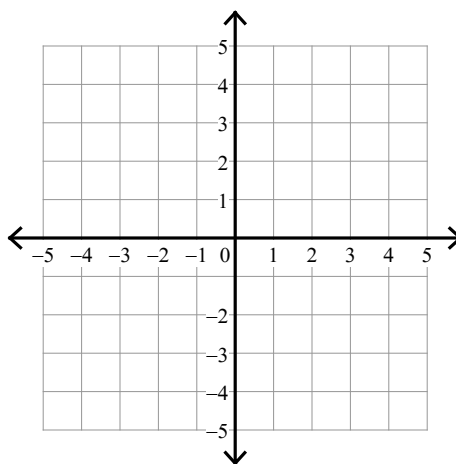
$$4) \begin{aligned} y &= \frac{1}{2}x - 3 \\ y &= -3x + 4 \end{aligned}$$



$$5) \begin{aligned} y &= -6x + 4 \\ y &= -2 \end{aligned}$$



$$6) \begin{aligned} y &= x - 1 \\ y &= x + 2 \end{aligned}$$



**Solve each system by substitution.**

$$7) \begin{aligned} y &= 4x + 3 \\ -8x + 2y &= 6 \end{aligned}$$

$$8) \begin{aligned} 2x + 5y &= 14 \\ y &= x \end{aligned}$$

$$9) \begin{aligned} 7x - 5y &= 0 \\ y &= 4x \end{aligned}$$

$$10) \begin{aligned} y &= 3x \\ -6x + 8y &= -18 \end{aligned}$$

$$11) \begin{aligned} y &= -6x \\ -6x - 8y &= 0 \end{aligned}$$

$$12) \begin{aligned} 3x - y &= -8 \\ y &= 4x \end{aligned}$$

$$13) \text{ Solve by Elimination:}$$

$$\begin{aligned} x + y &= 10 \\ x - y &= 2 \end{aligned}$$

$$14) \text{ Solve by Elimination:}$$

$$\begin{aligned} 7x + 2y &= 10 \\ -7x + y &= -16 \end{aligned}$$

15) Solve by Elimination:

$$4x + y = 8$$

$$-3x - y = 0$$

16) Solve by Elimination:

$$2x - 3y = 5$$

$$x + 2y = -1$$

17) Solve by Elimination:

$$3x + 2y = -19$$

$$x - 12y = 19$$

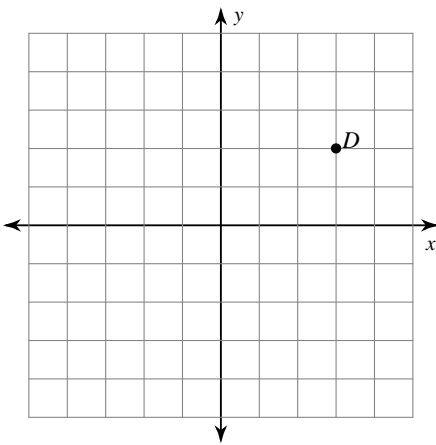
18) Solve by Elimination:

$$x + y = -3$$

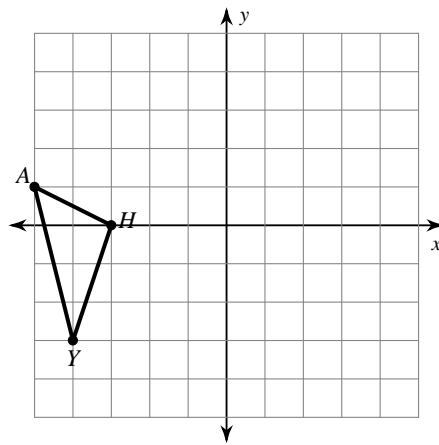
$$2x + 2y = -6$$

**Graph the image of the figure using the transformation given.**

19) translation:  $(x, y) \rightarrow (x + 1, y - 1)$

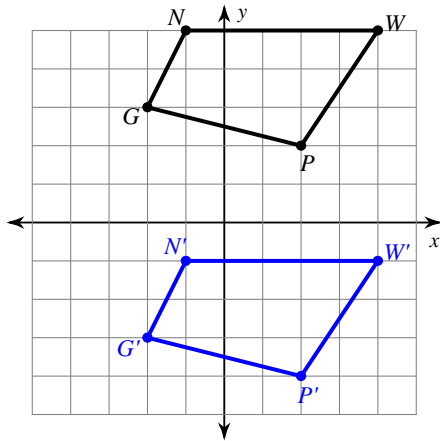


20) translation:  $(x, y) \rightarrow (x + 8, y)$

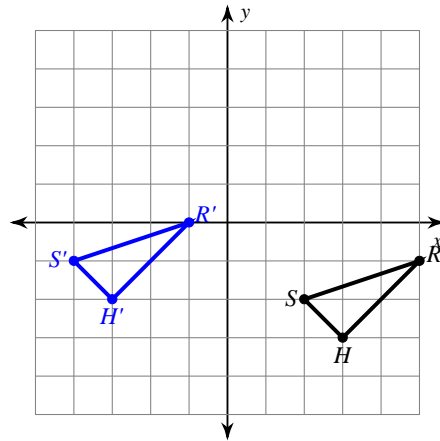


**Write a rule to describe each transformation.**

21)

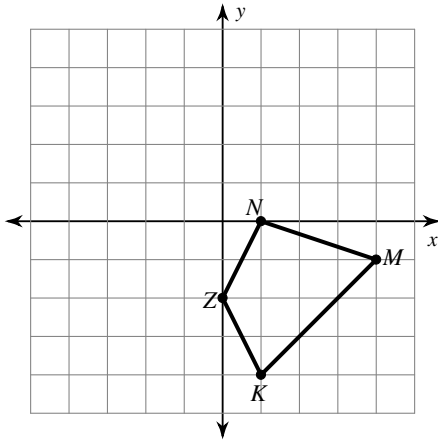


22)

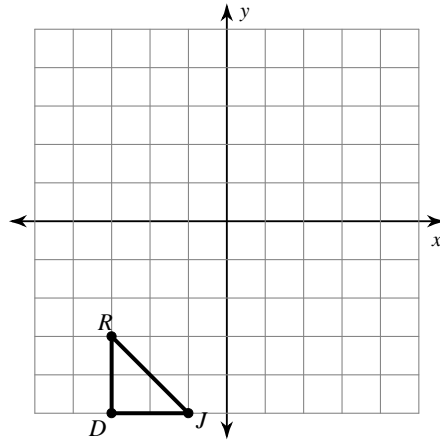


Graph the image of the figure using the transformation given.

23) reflection across the x-axis

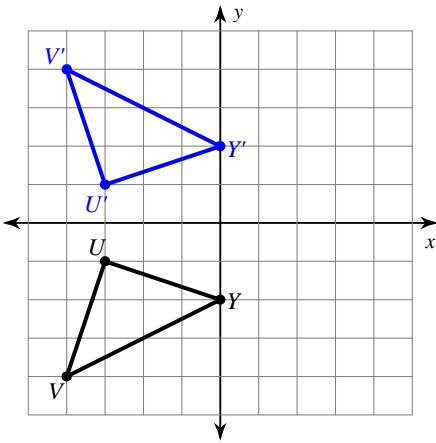


24) reflection across the y-axis

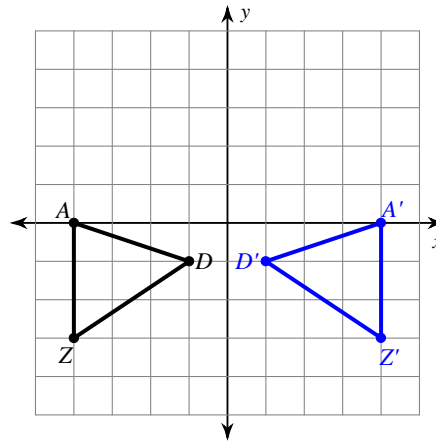


Write a rule to describe each transformation.

25)

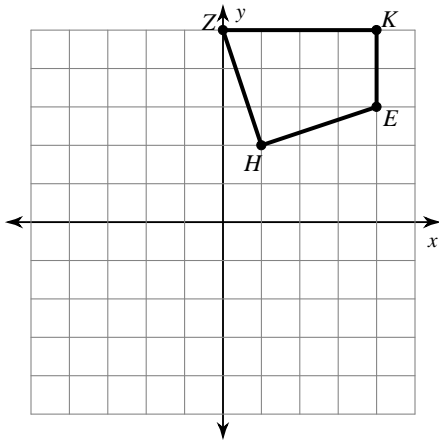


26)

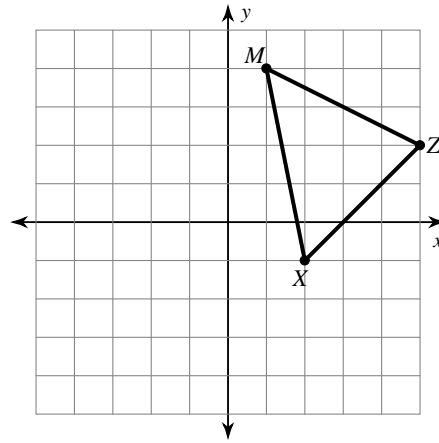


Graph the image of the figure using the transformation given.

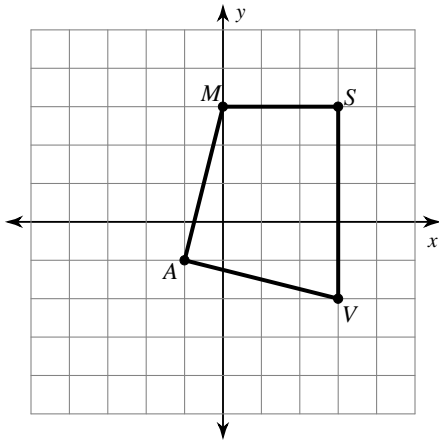
27) rotation  $180^\circ$  about the origin



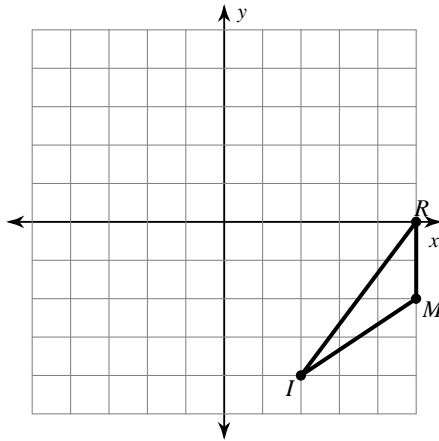
28) rotation  $180^\circ$  about the origin



29) rotation  $90^\circ$  counterclockwise about the origin

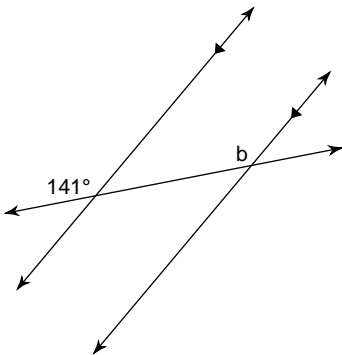


30) rotation  $90^\circ$  counterclockwise about the origin

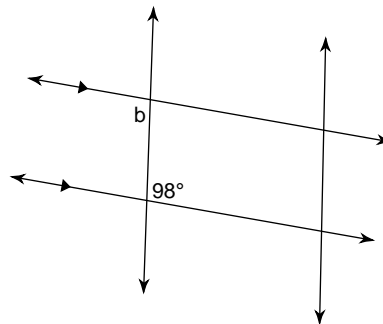


Find the measure of all missing angles.

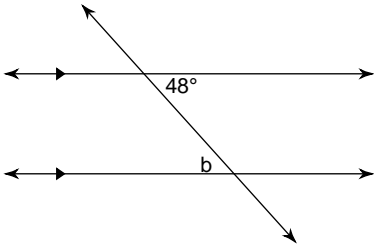
31)



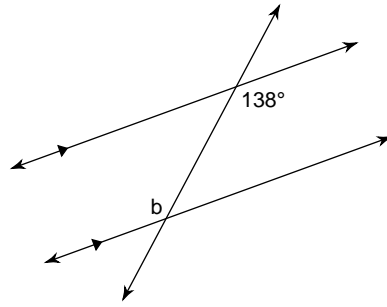
32)



33)

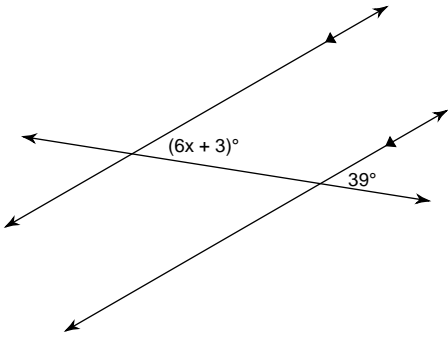


34)

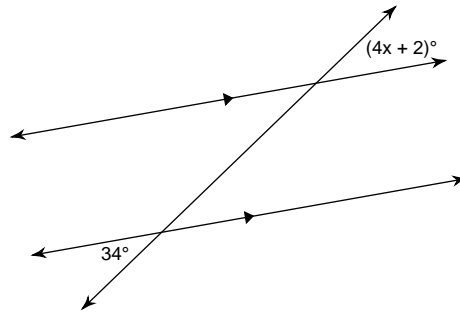


**Find the value of  $x$  AND the angle measurement of that angle.**

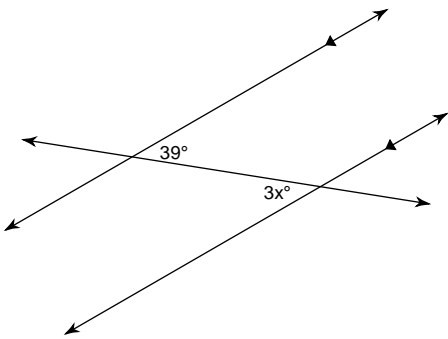
35)



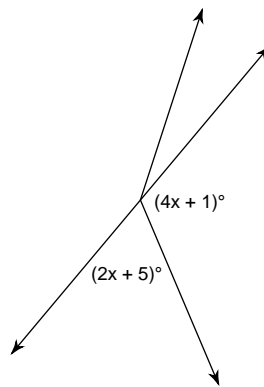
36)



37)

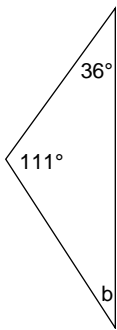


38)

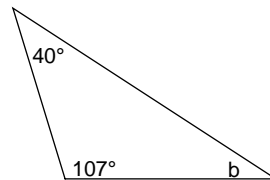


Find the measure of angle b.

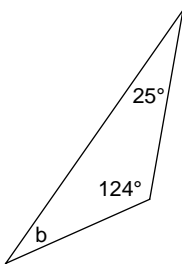
39)



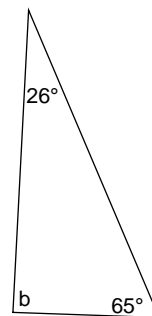
40)



41)

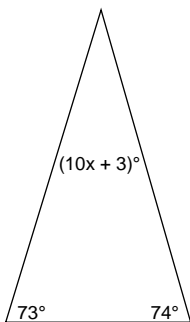


42)

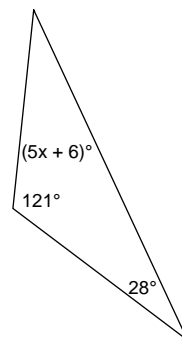


Find the value of x AND the measurement of the missing angle.

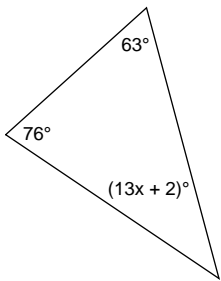
43)



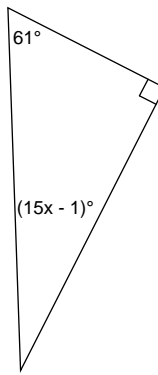
44)



45)

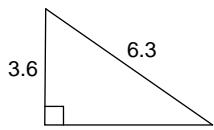


46)

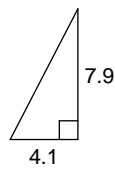


**Use the Pythagorean Theorem to find each missing length to the nearest tenth.**

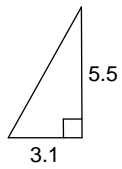
47)



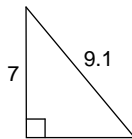
48)



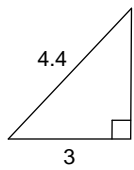
49)



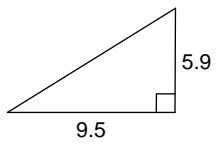
50)



51)



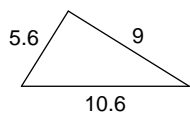
52)



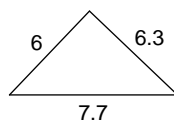


Do the following lengths form a right triangle?

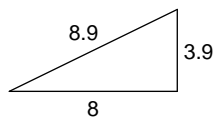
53)



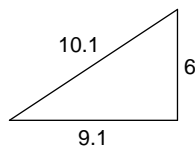
54)



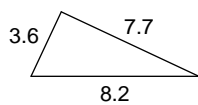
55)



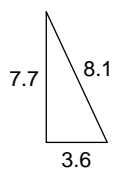
56)



57)



58)



Find the distance between each pair of points.

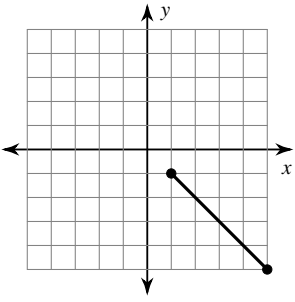
59)  $(2, 8)$ ,  $(-6, 3)$

60)  $(2, -4)$ ,  $(8, 8)$

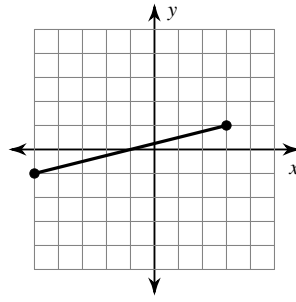
61)  $(-4, 6)$ ,  $(4, 2)$

62)  $(-6, 5)$ ,  $(-7, 8)$

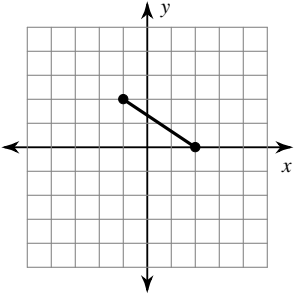
63)



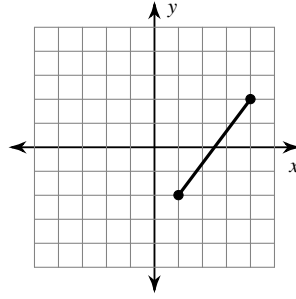
64)



65)

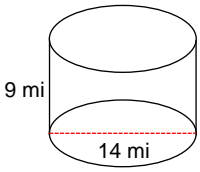


66)

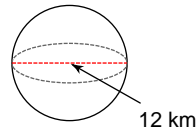


**Find the volume of each figure. Round to the nearest tenth.**

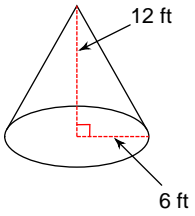
67)



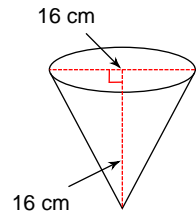
68)



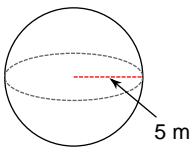
69)



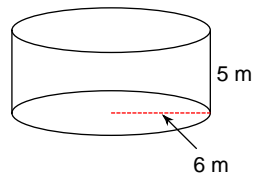
70)



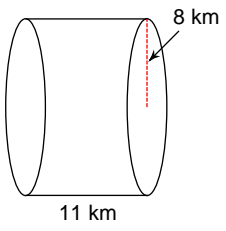
71)



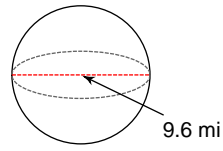
72)



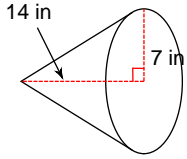
73)



74)



75)

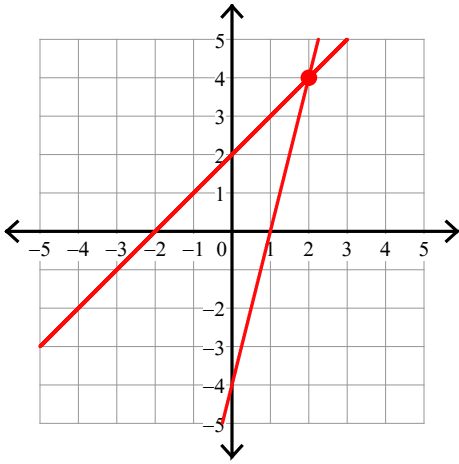


## Review for Final Exam #1 - 2015

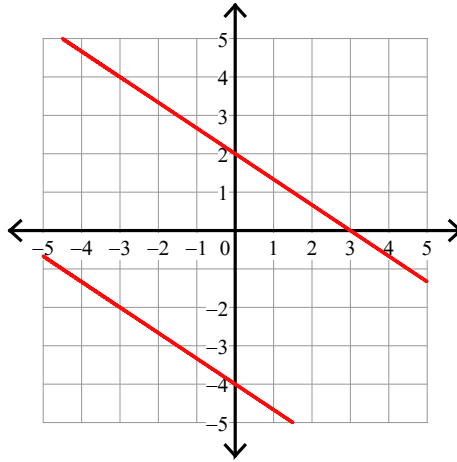
Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

Solve each system by graphing.

$$1) \begin{aligned} y &= x + 2 \\ y &= 4x - 4 \end{aligned}$$

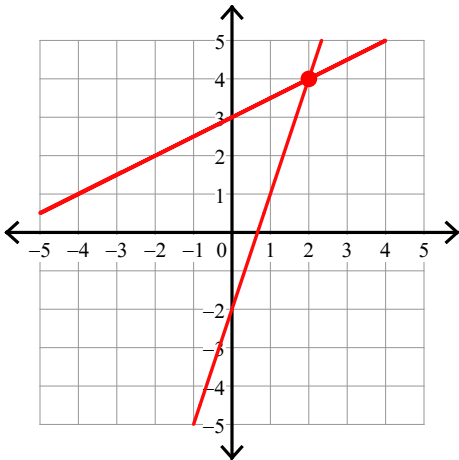
 $(2, 4)$ 

$$2) \begin{aligned} y &= -\frac{2}{3}x + 2 \\ y &= -\frac{2}{3}x - 4 \end{aligned}$$

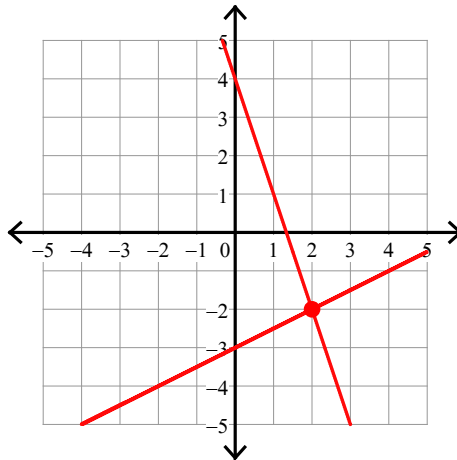


No solution

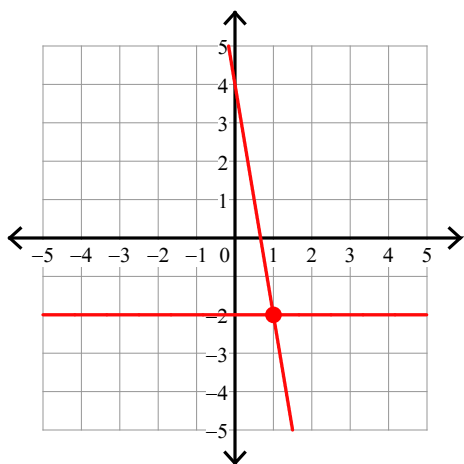
$$3) \begin{aligned} y &= \frac{1}{2}x + 3 \\ y &= 3x - 2 \end{aligned}$$

 $(2, 4)$ 

$$4) \begin{aligned} y &= \frac{1}{2}x - 3 \\ y &= -3x + 4 \end{aligned}$$

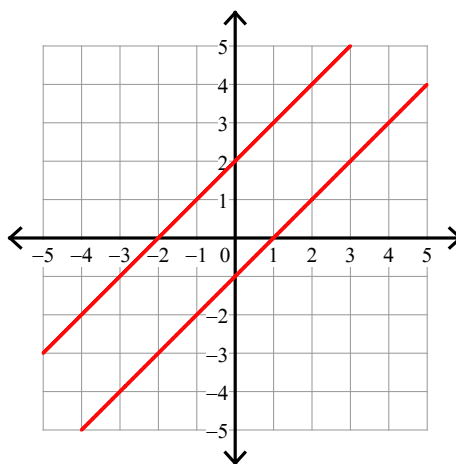
 $(2, -2)$

5)  $y = -6x + 4$   
 $y = -2$



$(1, -2)$

6)  $y = x - 1$   
 $y = x + 2$



No solution

**Solve each system by substitution.**

7)  $y = 4x + 3$   
 $-8x + 2y = 6$

Infinite number of solutions

8)  $2x + 5y = 14$   
 $y = x$

$(2, 2)$

9)  $7x - 5y = 0$   
 $y = 4x$

$(0, 0)$

10)  $y = 3x$   
 $-6x + 8y = -18$

$(-1, -3)$

11)  $y = -6x$   
 $-6x - 8y = 0$

$(0, 0)$

12)  $3x - y = -8$   
 $y = 4x$

$(8, 32)$

13) Solve by Elimination:  
 $x + y = 10$   
 $x - y = 2$

$(6, 4)$

14) Solve by Elimination:  
 $7x + 2y = 10$   
 $-7x + y = -16$

$(2, -2)$

15) Solve by Elimination:

$$4x + y = 8$$

$$-3x - y = 0$$

(8, -24)

16) Solve by Elimination:

$$2x - 3y = 5$$

$$x + 2y = -1$$

(1, -1)

17) Solve by Elimination:

$$3x + 2y = -19$$

$$x - 12y = 19$$

(-5, -2)

18) Solve by Elimination:

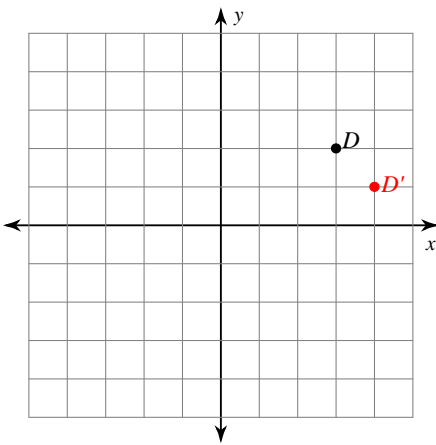
$$x + y = -3$$

$$2x + 2y = -6$$

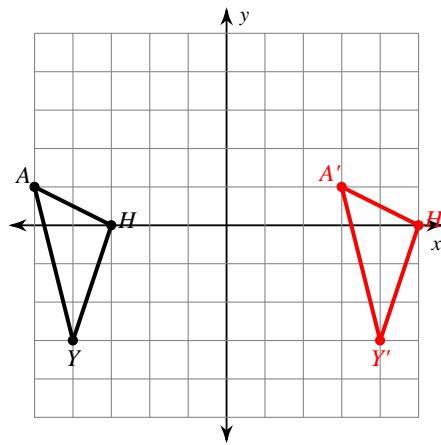
infinite number of solutions

**Graph the image of the figure using the transformation given.**

19) translation:  $(x, y) \rightarrow (x + 1, y - 1)$

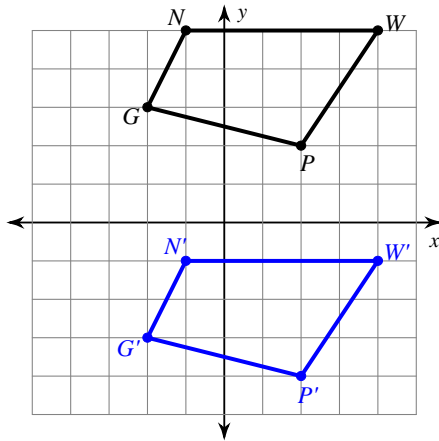


20) translation:  $(x, y) \rightarrow (x + 8, y)$



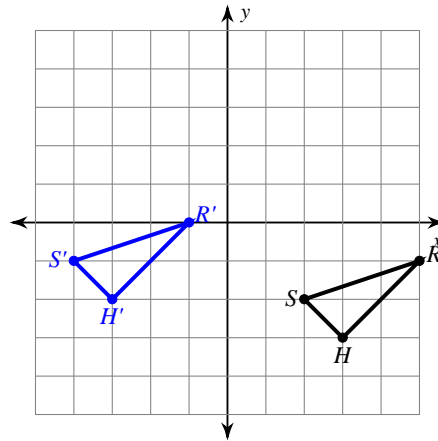
**Write a rule to describe each transformation.**

21)



translation:  $(x, y) \rightarrow (x, y - 6)$

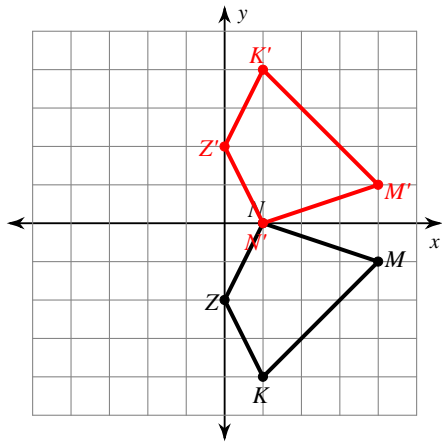
22)



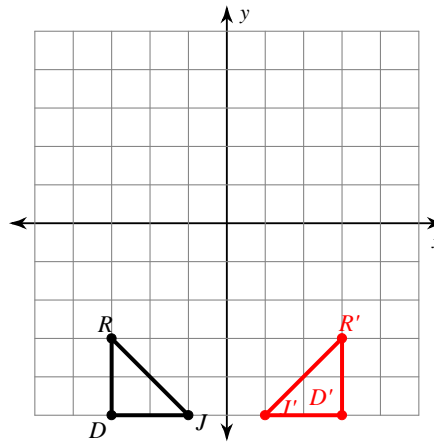
translation:  $(x, y) \rightarrow (x - 6, y + 1)$

Graph the image of the figure using the transformation given.

23) reflection across the x-axis

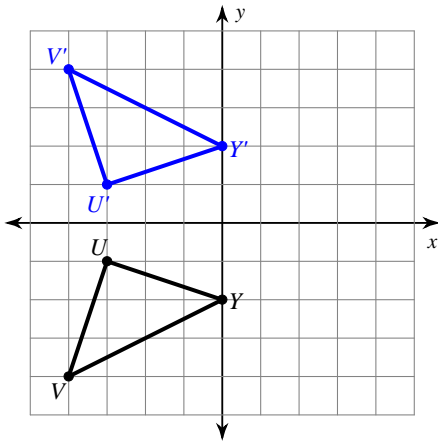


24) reflection across the y-axis



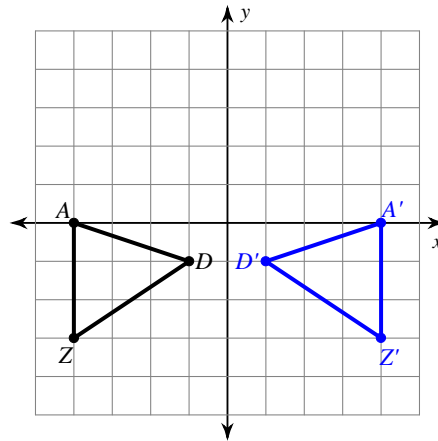
Write a rule to describe each transformation.

25)



reflection across the x-axis

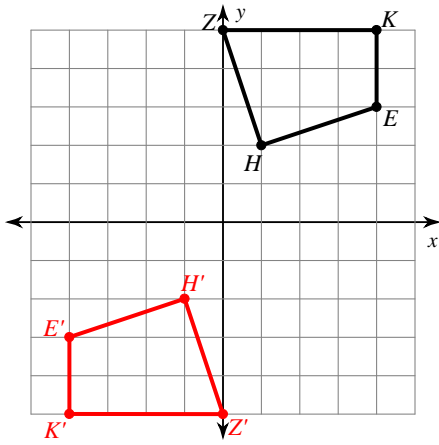
26)



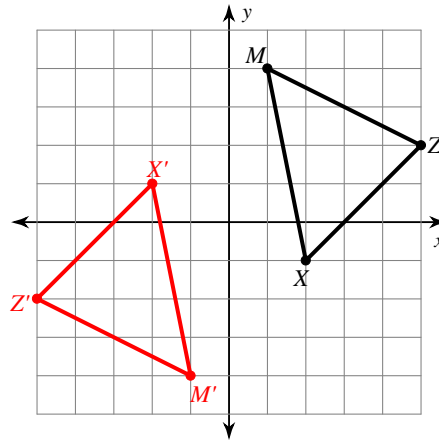
reflection across the y-axis

Graph the image of the figure using the transformation given.

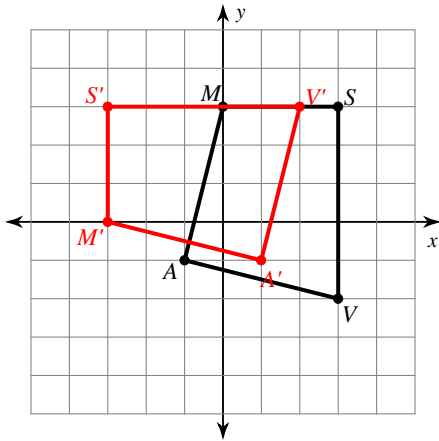
27) rotation  $180^\circ$  about the origin



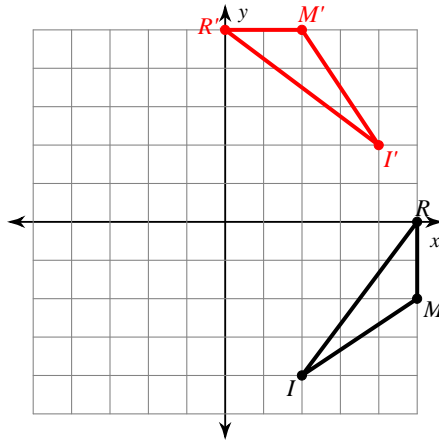
28) rotation  $180^\circ$  about the origin



29) rotation  $90^\circ$  counterclockwise about the origin

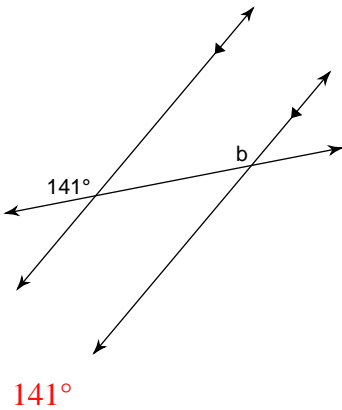


30) rotation  $90^\circ$  counterclockwise about the origin

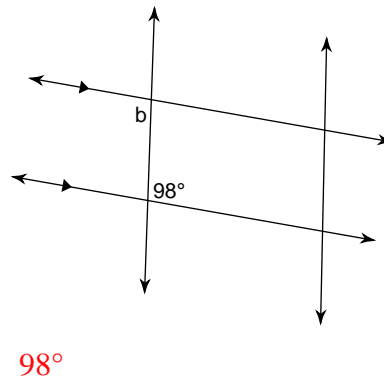


Find the measure of all missing angles.

31)

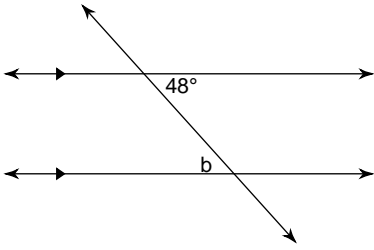


32)



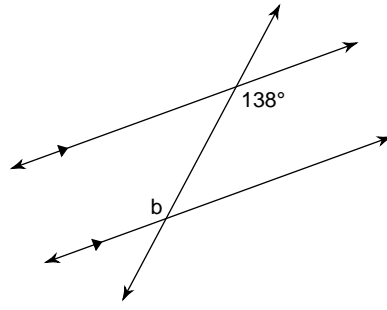


33)



48°

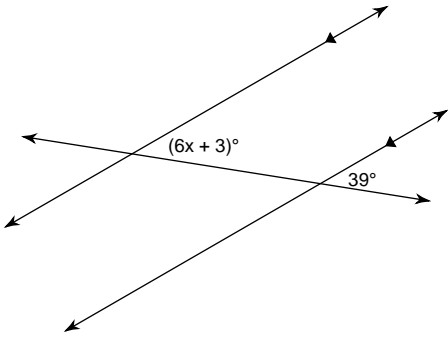
34)



138°

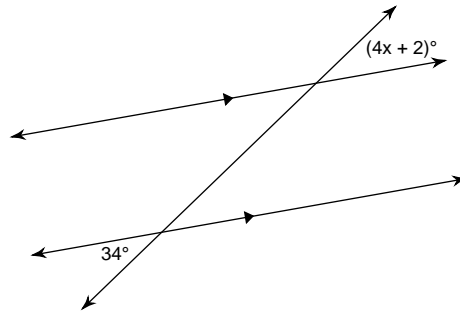
**Find the value of x AND the angle measurement of that angle.**

35)



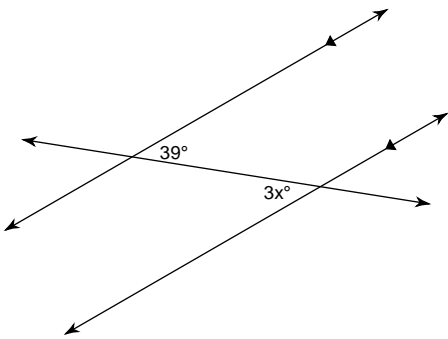
6

36)



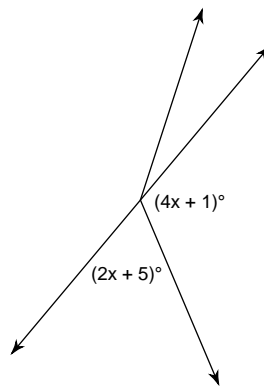
8

37)



13

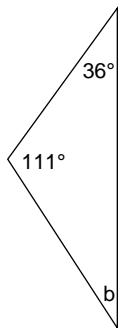
38)



29

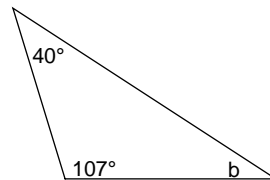
Find the measure of angle b.

39)



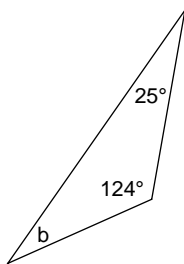
$33^\circ$

40)



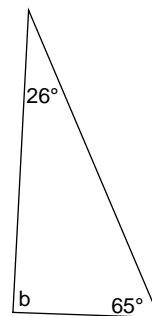
$33^\circ$

41)



$31^\circ$

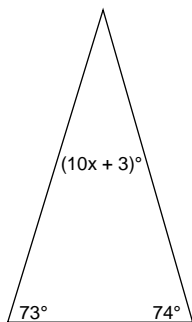
42)



$89^\circ$

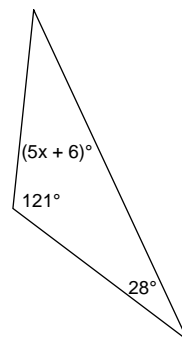
Find the value of x AND the measurement of the missing angle.

43)



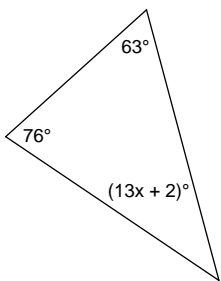
3

44)



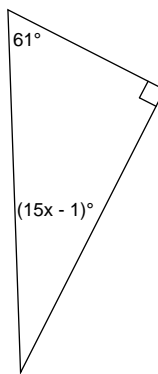
5

45)



3

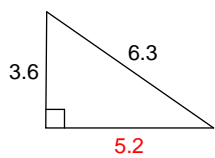
46)



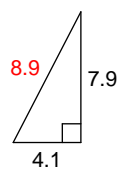
2

Use the Pythagorean Theorem to find each missing length to the nearest tenth.

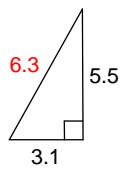
47)



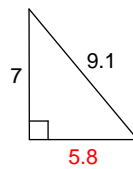
48)



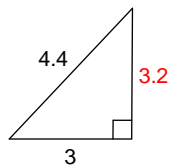
49)



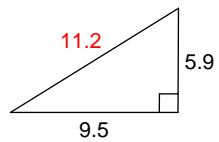
50)



51)

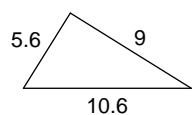


52)



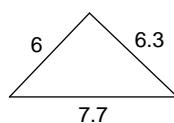
Do the following lengths form a right triangle?

53)



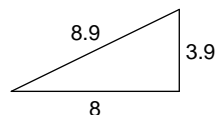
Yes

54)



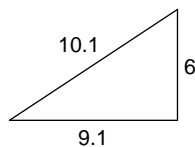
No

55)



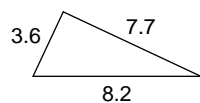
Yes

56)



No

57)



No

58)



No

Find the distance between each pair of points.

59) (2, 8), (-6, 3)

$\sqrt{89}$

60) (2, -4), (8, 8)

$6\sqrt{5}$

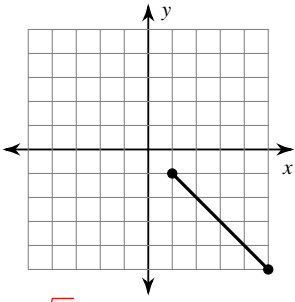
61) (-4, 6), (4, 2)

$4\sqrt{5}$

62) (-6, 5), (-7, 8)

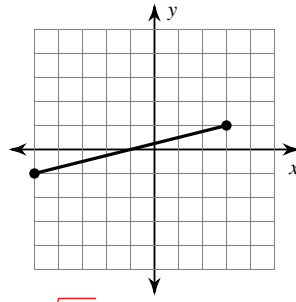
$\sqrt{10}$

63)



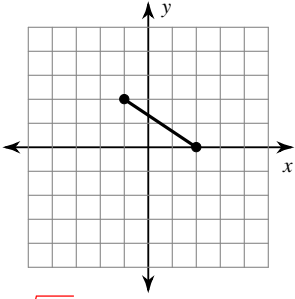
$4\sqrt{2}$

64)



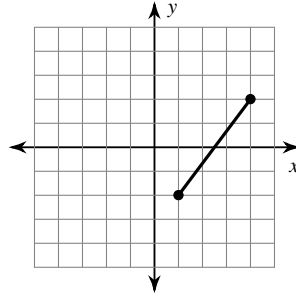
$2\sqrt{17}$

65)



$\sqrt{13}$

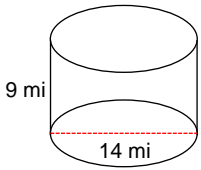
66)



5

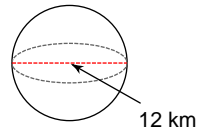
**Find the volume of each figure. Round to the nearest tenth.**

67)



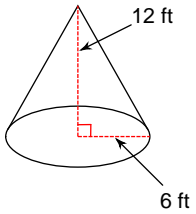
$1385.4 \text{ mi}^3$

68)



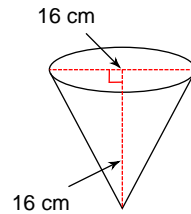
$904.8 \text{ km}^3$

69)



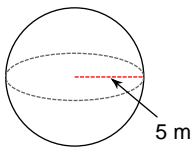
$452.4 \text{ ft}^3$

70)



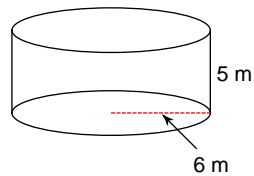
$1072.3 \text{ cm}^3$

71)



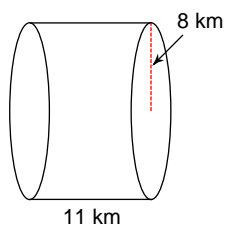
$523.6 \text{ m}^3$

72)



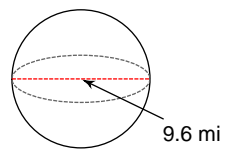
$565.5 \text{ m}^3$

73)



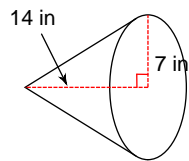
$2211.7 \text{ km}^3$

74)



$463.2 \text{ mi}^3$

75)



$718.4 \text{ in}^3$