

Pg 46-47 #1-15 Odd

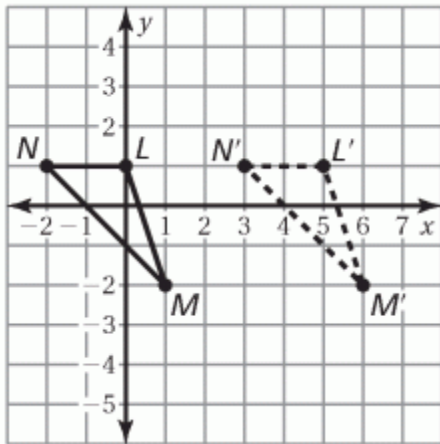
1. a. $\angle A$ and $\angle D$, $\angle B$ and $\angle E$, $\angle C$ and $\angle F$
b. Side AB and Side DE ,
Side BC and Side EF ,
Side AC and Side DF
3. $\angle V$ does not belong. The other three angles are congruent to each other, but not to $\angle V$.
5. congruent
7. $\angle P$ and $\angle W$, $\angle Q$ and $\angle V$,
 $\angle R$ and $\angle Z$, $\angle S$ and $\angle Y$,
 $\angle T$ and $\angle X$;
Side PQ and Side WV ,
Side QR and Side VZ ,
Side RS and Side ZY ,
Side ST and Side YX ,
Side TP and Side XW
9. not congruent; Corresponding side lengths are not congruent.
11. The corresponding angles are not congruent, so the two figures are not congruent.
13. See *Taking Math Deeper*.

- 15.**
- a.** true; Side AB corresponds to Side YZ .
 - b.** true; $\angle A$ and $\angle X$ have the same measure.
 - c.** false; $\angle A$ corresponds to $\angle Y$.
 - d.** true; The measure of $\angle A$ is 90° , the measure of $\angle B$ is 140° , the measure of $\angle C$ is 40° , and the measure of $\angle D$ is 90° . So, the sum of the angle measures of $ABCD$ is $90^\circ + 140^\circ + 40^\circ + 90^\circ = 360^\circ$.

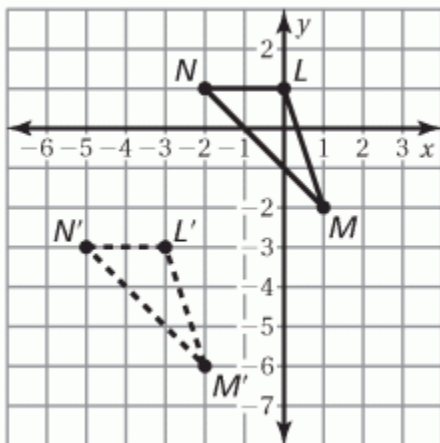
Pg 52-53 #1-21 Odd

1. A
3. yes; Translate the letters T and O to the end.
5. no
7. yes
9. no
11. $A'(-3, 0)$, $B'(0, -1)$,
 $C'(1, -4)$, $D'(-3, -5)$

13.



15.



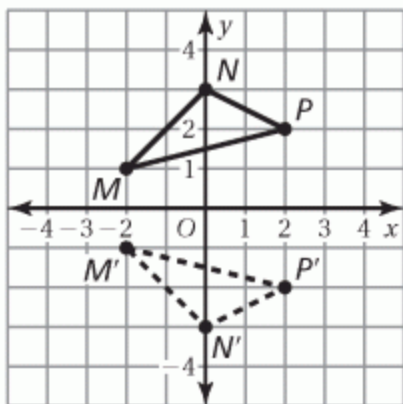
17. 2 units left and 2 units up
19. 6 units right and 3 units down

- 21.** **a.** 5 units right and 1 unit up
b. no; It would hit the island.
c. 4 units up and 4 units right

Pg 58-59 #1-21 Odd

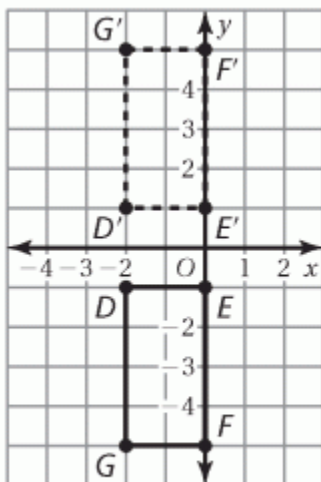
1. The third one because it is not a reflection.
3. Quadrant IV
5. yes
7. no
9. no

11.



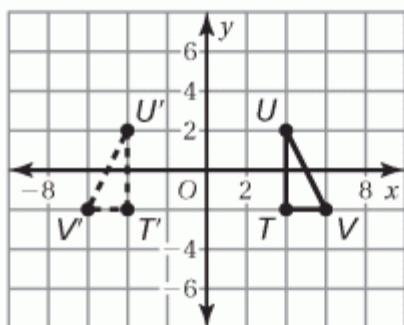
$M'(-2, -1)$, $N'(0, -3)$,
 $P'(2, -2)$

13.



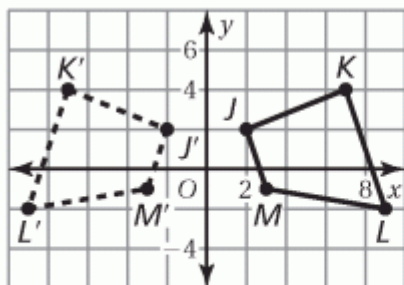
$D'(-2, 1)$, $E'(0, 1)$, $F'(0, 5)$, $G'(-2, 5)$

15.



$T'(-4, -2)$, $U'(-4, 2)$, $V'(-6, -2)$

17.



$J'(-2, 2)$, $K'(-7, 4)$, $L'(-9, -2)$, $M'(-3, -1)$

19. x -axis

21. y -axis

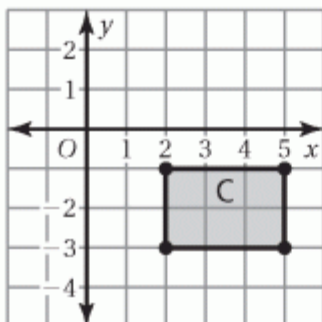
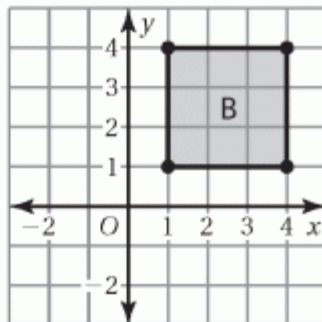
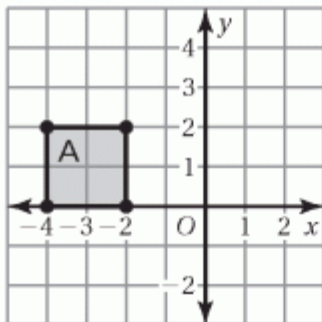
Pg 66-67 #1-25 Odd

1. $(0, 0); (1, -3)$
3. Quadrant IV
5. Quadrant II
7. reflection
9. translation
11. yes; 90° counterclockwise
13. $A'(2, 2), B'(1, 4), C'(3, 4), D'(4, 2)$
15. $J'(0, -3), K'(0, -5), L'(-4, -3)$
17. $W'(-2, 6), X'(-2, 2), Y'(-6, 2), Z'(-6, 5)$
19. It only needs to rotate 120° to produce an identical image.
21. It only needs to rotate 180° to produce an identical image.
23. $J''(4, 4), K''(3, 4), L''(1, 1), M''(4, 1)$
25. *Sample answer:* Rotate 180° about the origin and then rotate 90° clockwise about vertex $(-1, 0)$; Rotate 90° counterclockwise about the origin and then translate 1 unit left and 1 unit down.

Pg 74-75 #1-13 Odd

1. They are congruent.
3. Yes, because the angles are congruent and the side lengths are proportional.
5. not similar; Corresponding side lengths are not proportional.

7.



A and B; Corresponding side lengths are proportional and corresponding angles are congruent.

9. $6\frac{2}{3}$
11. 14
13. 30 in.

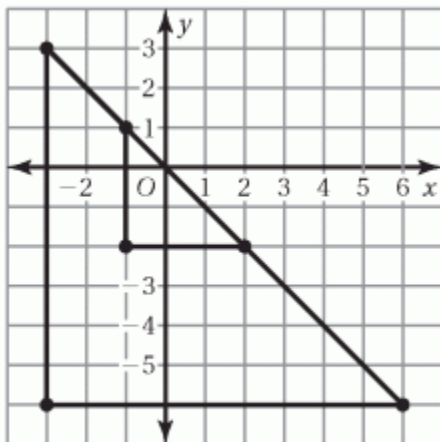
Pg 80-81 #1-15 Odd

1. The ratio of the perimeters is equal to the ratio of the corresponding side lengths.
3. Because the ratio of the corresponding side lengths is $\frac{1}{2}$, the ratio of the areas is equal to $\left(\frac{1}{2}\right)^2$.
To find the area, solve the proportion $\frac{30}{x} = \frac{1}{4}$ to get $x = 120$ square inches.
5. $\frac{5}{8}; \frac{25}{64}$
7. $\frac{14}{9}; \frac{196}{81}$
9. The area is 9 times larger.
11. 25.6
13. 39 in.; 93.5 in.²
15. 108 yd

Pg 86-87 #1-15 Odd

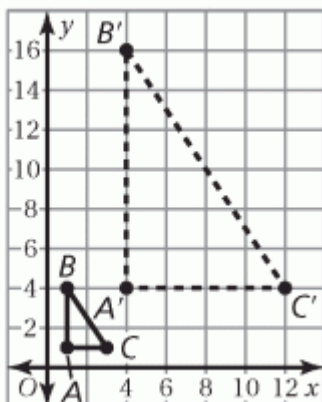
1. A dilation changes the size of a figure. The image is similar, not congruent, to the original figure.
3. The middle red figure is not a dilation of the blue figure because the height is half of the blue figure and the base is the same. The left red figure is a reduction of the blue figure and the right red figure is an enlargement of the blue figure.

5.

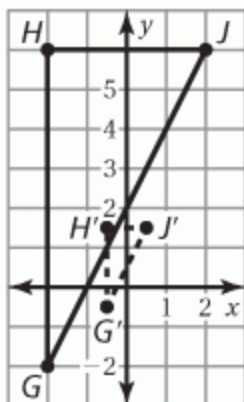


The triangles are similar.

7. yes
9. no
11. yes
- 13.



15.

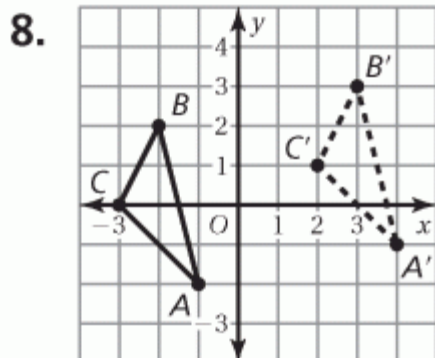
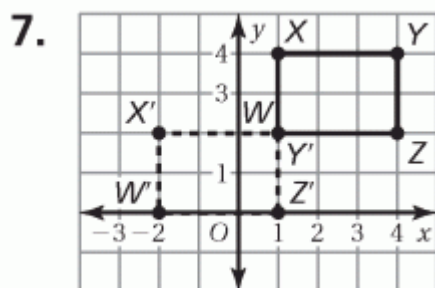


Pg 91-95 #1-3, 5-16, 23-27 Odd

1. 3 ft
2. 20 ft
3. $\angle A$ and $\angle K$, $\angle B$ and $\angle L$,
 $\angle C$ and $\angle M$; Side AB and
 Side KL , Side BC and Side LM , Side
 AC and Side KM

5. no

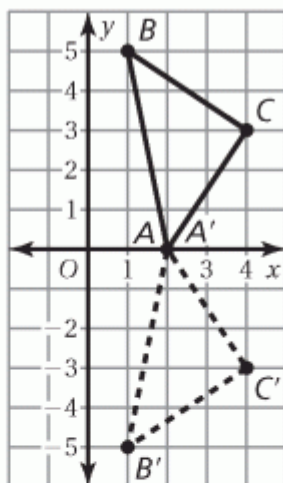
6. yes



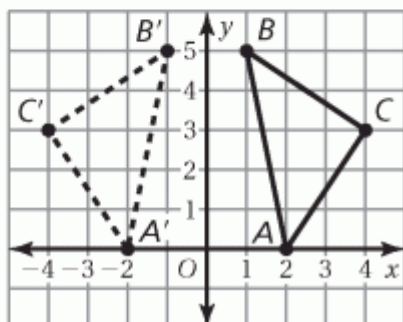
9. no

10. yes

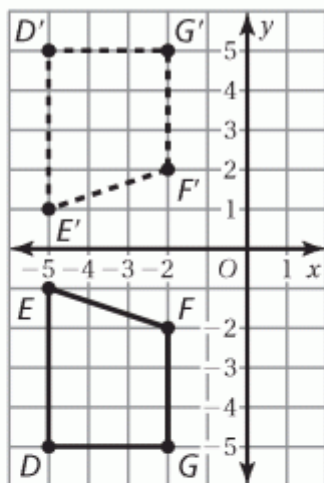
11. a.



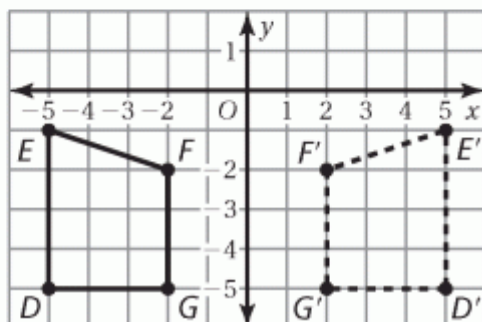
b.



12. a.



b.



13. $E'(2, -1)$, $F'(2, -3)$,
 $G'(-2, -3)$, $H'(-2, -1)$

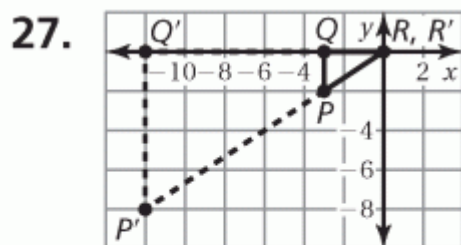
14. no

15. yes; 180° counterclockwise
or clockwise

16. $A'(4, -2)$, $B'(2, -2)$, $C'(3, -4)$

23. $\frac{7}{4}$; $\frac{49}{16}$

25. no



enlargement