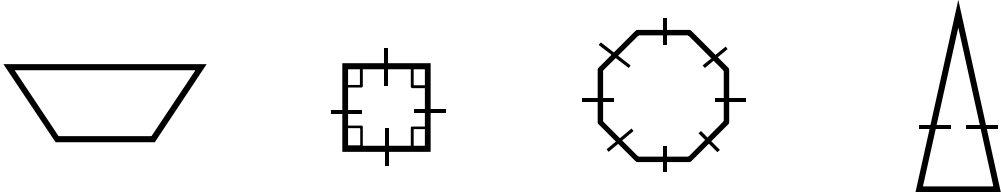
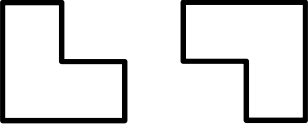
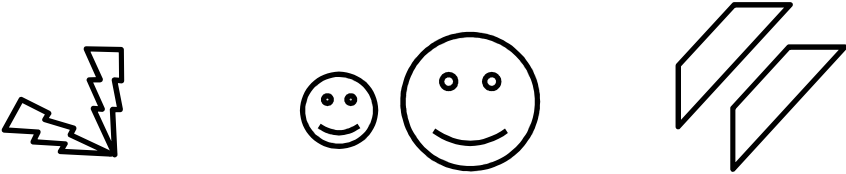


For full credit, show all work.

Study all geometry vocabulary words from your chapter packet.

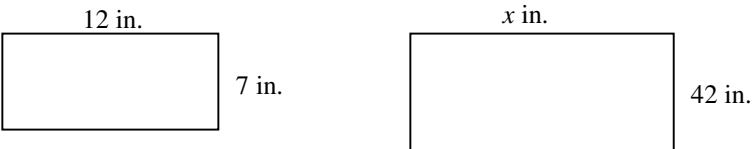
1.	<p>Caleb drew a quadrilateral on his paper. Which of the following must be true about his drawing?</p> <p>A The drawing must have opposite sides parallel. B The drawing must have four vertices. C The drawing must be a rectangle. D The drawing must be a regular polygon.</p>	B
2.	<p>Which of the following could be a parallelogram?</p> <p>A 3 in, 4 in, 5 in, 6 in C 4 in, 8 in, 12 in, 8 in B 5 in, 5 in, 10 in, 12 in D 6 in, 6 in, 9 in, 9 in</p>	D
		
3.	<p>Which statement is not true about the shape on the far left?</p> <p>A It has two obtuse angles. C It has two sides that are parallel. B It has two acute angles. D It is a parallelogram.</p>	D
4.	<p>Which statement is true about the second shape from the left?</p> <p>A It has exactly two vertices. B Its angles add up to exactly 180 degrees. C It is a rectangle. D It is a trapezoid.</p>	C
5.	<p>Which statement is not true about the third shape from the left?</p> <p>A It is a regular octagon. B It has a total of 14 sides and vertices. C It is possible to draw more than 10 diagonals. D Its angles add up to more than 500 degrees.</p>	B
6.	<p>Which statement is true about the shape on the far right?</p> <p>A It has two obtuse angles. C It is an equilateral triangle. B It has one acute angle. D It is an isosceles triangle.</p>	D

7.	<p>Which statement is true about the following shapes?</p>  <p>A Total sides = 16 B Total right angles = 12 C The shapes are similar. D Total vertices = 10</p>	C
8.	<p>Which of the following is not shown in the transformations below?</p>  <p>A Reflection B Rotation C Dilation D Translation</p>	A

Circle Always, Sometimes, or Never.

9.	Pentagons are regular polygons.	Always	<u>Sometimes</u>	Never
10.	Squares are rectangles.	<u>Always</u>	Sometimes	Never
11.	Rhombi are rectangles.	Always	<u>Sometimes</u>	Never
12.	Congruent figures are similar figures.	<u>Always</u>	Sometimes	Never

13.	<p>If the corresponding angles of 2 polygons are congruent and the lengths of the corresponding sides of the polygons are proportional, the polygons are</p> <p>A rectangular C congruent B symmetric D similar</p>	D
14.	<p>Ms. Johnsen believes that all squares are parallelograms. Which of the following supports or rejects her belief?</p> <p>A She is incorrect because parallelograms do not always have right angles. B She is correct because both squares and parallelograms have 4 sides. C She is incorrect because only squares must have all sides the same length. D She is correct because all squares have opposite sides parallel.</p>	D
15.	<p>Which of the following is not true about similar figures?</p> <p>A Similar figures always have the same shape. B Similar figures always have the same size. C Similar figures always have corresponding angles that are equal. D Similar figures always have corresponding sides that are proportional.</p>	B

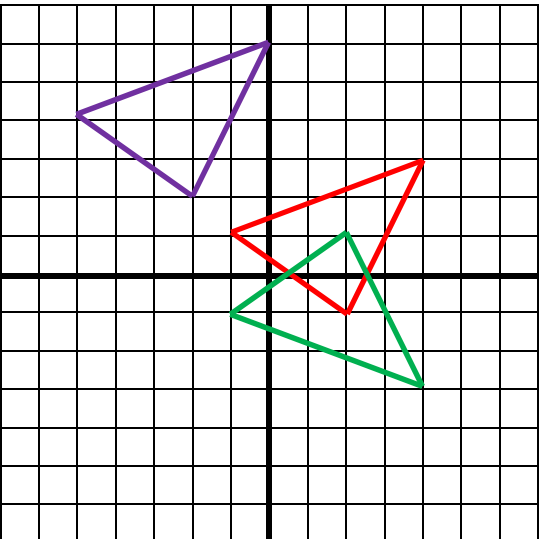
16.	Using a proportion, determine the length of the missing side assuming the two shapes are similar. 	Proportion
		$\frac{12}{x} = \frac{7}{42}$
		Answer
		$x = 72 \text{ in}$

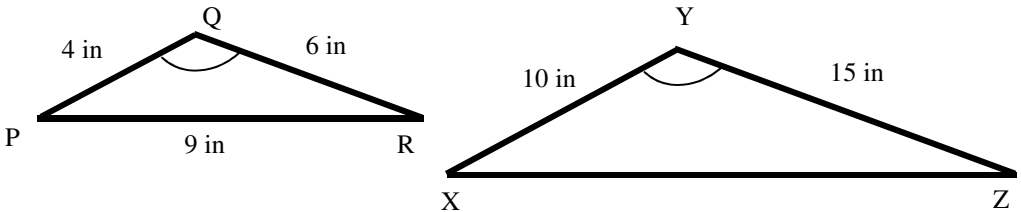
17.	You want to translate polygon RSTV so that vertex T is moved from coordinate (4, -1) to coordinate (-4, 1). Write in words the steps that would be used for this translation (ex. move up/down/left/right so many units). <ul style="list-style-type: none"> • Move left 8 • Move up 2
-----	--

Draw triangle XYZ below. Triangle XYZ has vertices at (2, -1), (4, 3), and (-1, 1).

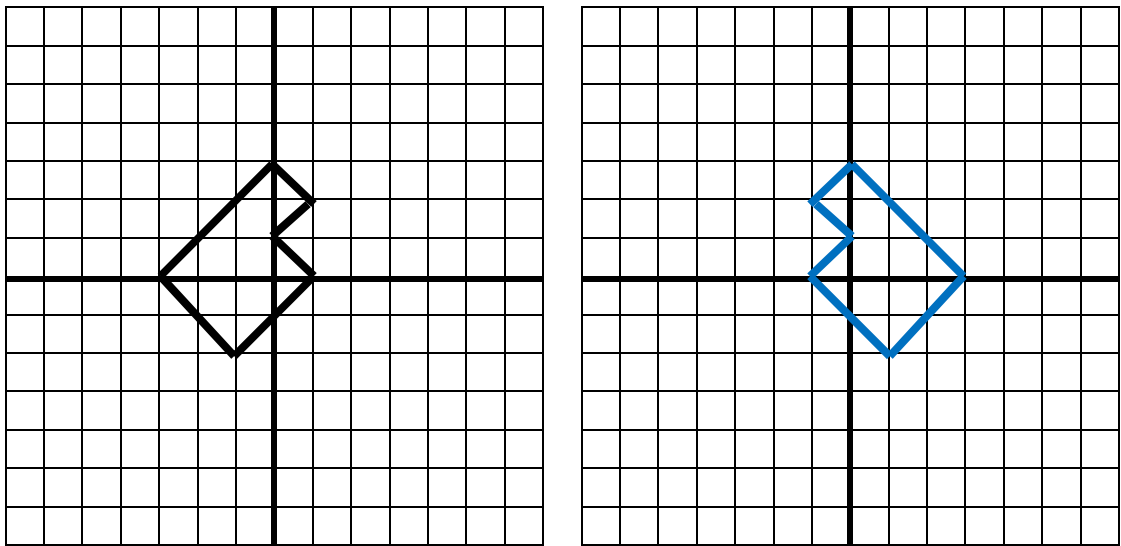
18. Graph a reflection of triangle XYZ across the horizontal axis. Label the new triangle X'Y'Z'.

19. Graph a translation of triangle XYZ to the left 4 units and up 3 units. Label the new triangle X''Y''Z''.

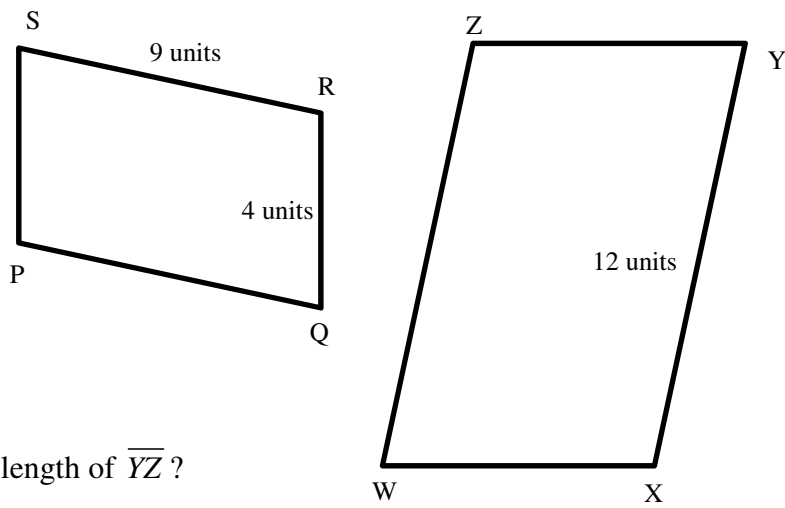


20.	Triangle PQR is similar to triangle XYZ. 	$\frac{4}{10} = \frac{9}{x}$
	What is the length of \overline{XZ} ?	$x = 22.5 \text{ in}$

21. Draw a reflection of this figure across the y-axis.



22. Parallelogram PQRS is similar to parallelogram WXYZ.

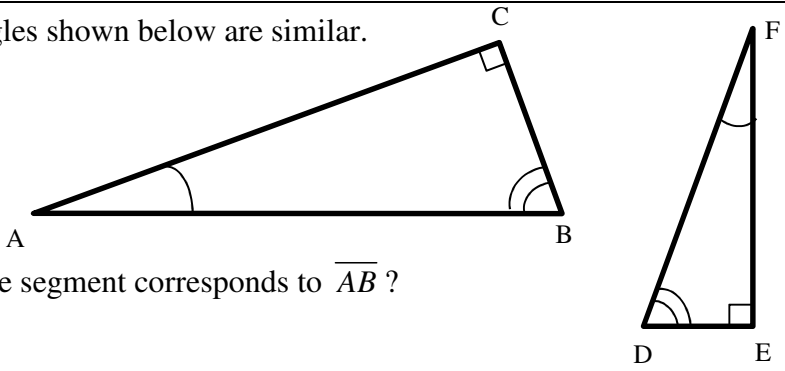


What is the length of \overline{YZ} ?

$$\frac{9}{12} = \frac{4}{x}$$

$$x = 5\frac{1}{3} \text{ units}$$

23. The triangles shown below are similar.

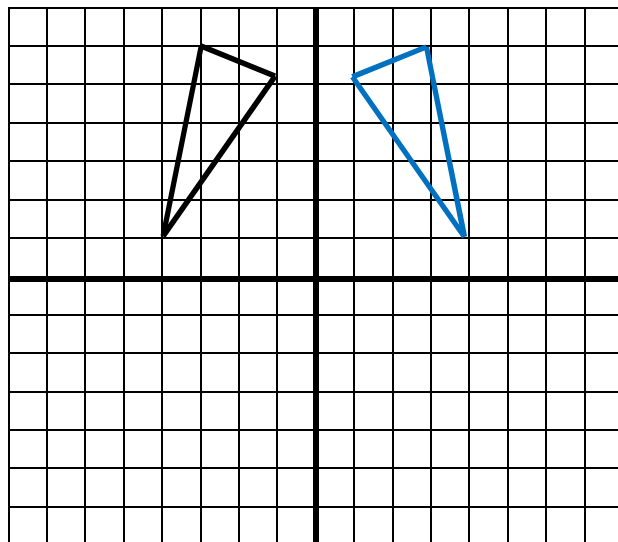
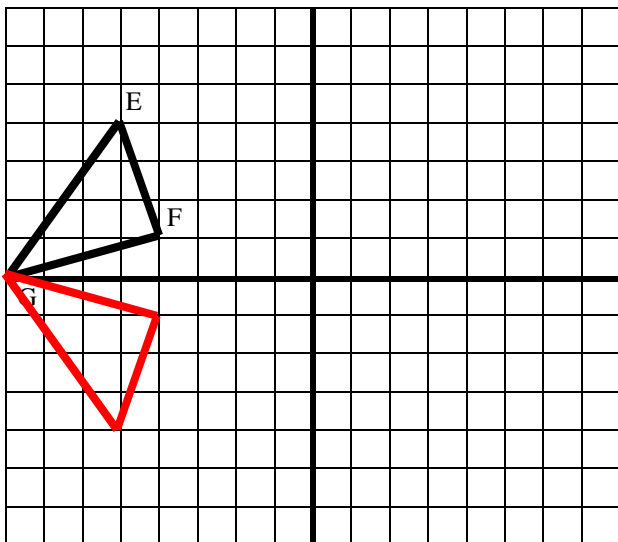


Which line segment corresponds to \overline{AB} ?

\overline{FD}

24. A rectangle has side lengths of $4\frac{1}{2}$ by $7\frac{1}{2}$ inches. This rectangle is dilated by a scale factor of $\frac{2}{3}$ to create a new rectangle. What are the side lengths of the new rectangle?

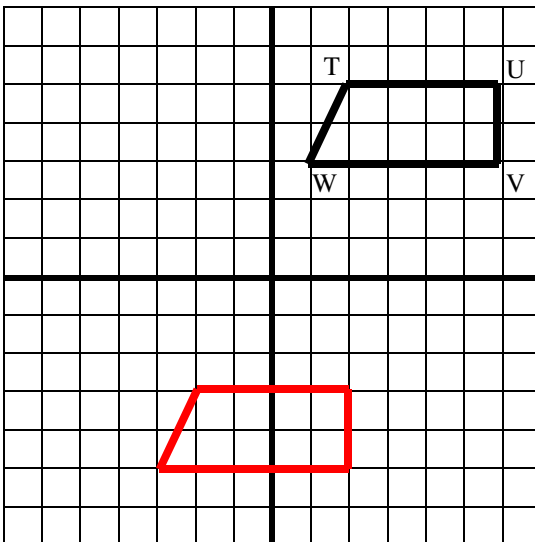
3 x 5



25. Triangle EFG is shown on the left grid above. If triangle EFG is reflected across the x -axis to form triangle $E'F'G'$, write an ordered pair that represents the coordinates of F' ($-4, -1$)

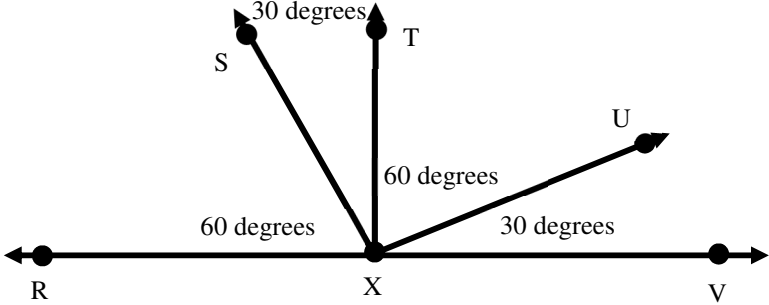
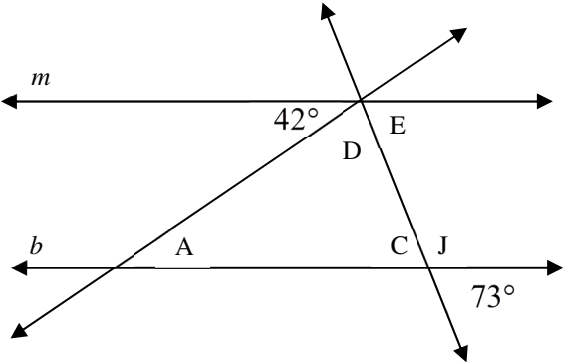
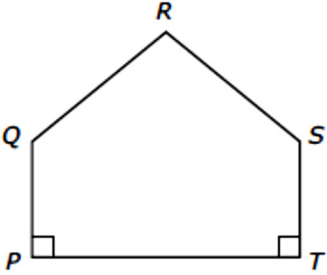
26. The vertices of a triangle are $(-1, 5)$, $(-4, 1)$, and $(-3, 6)$. On the right grid above draw the original triangle and the result of reflecting the triangle across the y -axis.

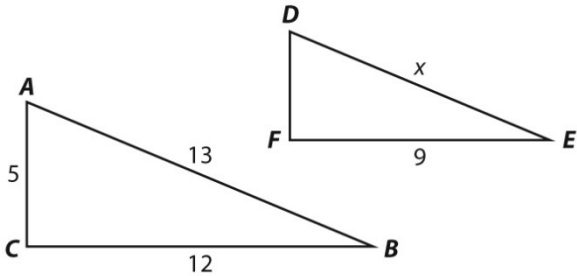
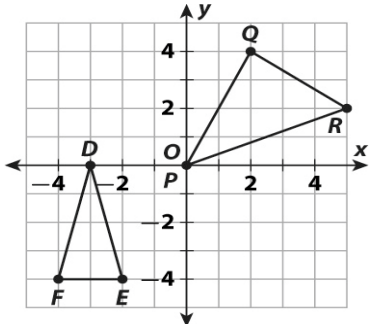
27. Figure $TUVW$ is shown on the grid below. Translate $TUVW$ 8 units down and 4 units to the left to form the image $T'U'V'W'$.

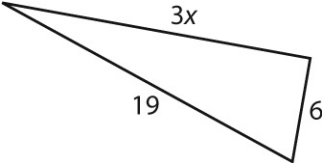
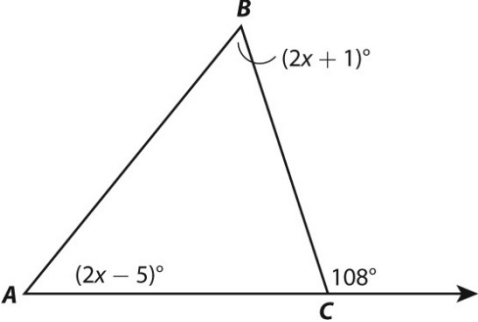
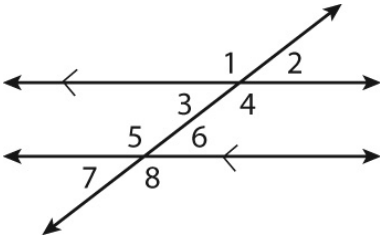
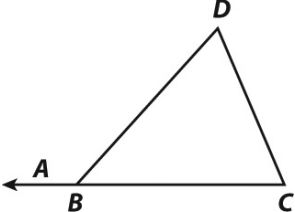


28. Determine the angles of a triangle with angles of x° , $(x - 6)^\circ$ and $2x^\circ$.

Equation
$x + x - 6 + 2x = 180$
Angles
$40.5^\circ, 46.5^\circ, 93^\circ$

29.	 <p>Name two angles which are complementary. Use notation such as $\angle ABC$. Name two angles which are supplementary. Use notation such as $\angle ABC$.</p>	<p>Complementary</p> <p>$\angle RXS$ & $\angle SXT$ $\angle SXT$ & $\angle TXU$ $\angle TXU$ & $\angle UXV$</p> <p>Supplementary</p> <p>$\angle RXS$ & $\angle SXV$ $\angle RXT$ & $\angle TXV$ $\angle RXU$ & $\angle UXV$</p>										
30.	Two angles are supplementary. The first angle is $3x$ degrees. The second angle is $(5x + 20)$ degrees. Determine the measure of each angle.	<p>Equation</p> $3x + (5x + 20) = 180$ <p>Angles</p> $60^\circ, 120^\circ$										
31.	<p>In the figure below $m \parallel b$. Based on angle relationships, determine the measure of each angle based on the given angle.</p> <table border="1" data-bbox="240 884 732 1182"> <tbody> <tr> <td>$\angle A$</td> <td>42°</td> </tr> <tr> <td>$\angle C$</td> <td>73°</td> </tr> <tr> <td>$\angle D$</td> <td>65°</td> </tr> <tr> <td>$\angle E$</td> <td>73°</td> </tr> <tr> <td>$\angle J$</td> <td>107°</td> </tr> </tbody> </table>	$\angle A$	42°	$\angle C$	73°	$\angle D$	65°	$\angle E$	73°	$\angle J$	107°	
$\angle A$	42°											
$\angle C$	73°											
$\angle D$	65°											
$\angle E$	73°											
$\angle J$	107°											
32.	The measure of $\angle W$ is 53° . What is the measure, in degrees, of the angle that is complementary to $\angle W$?	37°										
33.	<p>Pentagon PQRST below models one side of a building.</p>  <p>The sum of the interior angles of the pentagon is 540°, the measure of angle Q is 125°, and $\angle Q \cong \angle S$. What is the measure of $\angle R$?</p>	110°										

34.	<p>The two right triangles below are similar. What is x, the missing side length in triangle DEF?</p> 	$\frac{12}{9} = \frac{13}{x}$ $x = 9\frac{3}{4} \text{ units}$
35.	<p>A rectangle 18 in. wide is twice that long. Which of these describes a similar rectangle?</p> <p>A 8in x 18in B 9in x 12in C 12in x 18in D 15in x 30in</p>	D
36.	<p>Use the triangles below to answer the next 4 questions.</p>  <p>Translate $\triangle DEF$ five units to the right.</p>	$D'(2,0), E'(3,-4), F'(1,-4)$
37.	<p>Reflect $\triangle DEF$ across the x-axis. Which point does not move?</p>	D
38.	<p>Apply the transformation below to $\triangle DEF$.</p> $(x, y) \rightarrow (-x, y)$	$D'(3,0), E'(2,-4), F'(4,-4)$
39.	<p>Apply the translation below to $\triangle DEF$.</p> $(x, y) \rightarrow (x - 10, y + 8)$	$D'(-13,8), E'(-12,4), F'(-14,4)$
40.	<p>The vertices of a trapezoid are located at $(1, -2), (3, -1), (3, -5)$ and $(1, -4)$. The trapezoid is translated 3 units to the left and then rotated 180° about the origin. What are the coordinates of its image?</p> <p>A $(-2, -2), (0, -1), (0, -5), (-2, -4)$ B $(2, 2), (0, 1), (0, 5), (2, 4)$ C $(-1, -2), (-3, 1), (-3, 5), (-1, 4)$ D $(-1, 0), (-3, 1), (0, 5), (-1, 4)$</p>	B

41.	<p>Which could be the value of x in the triangle below?</p>  <p>A 9 B 8 C 6 D 4</p>	C
42.	<p>What is the measure of $\angle B$?</p> 	57°
43.	<p>Use the figure to answer the next 2 questions.</p>  <p>Which pair of angles are alternate exterior angles?</p> <p>A $\angle 7$ and $\angle 4$ C $\angle 8$ and $\angle 1$ B $\angle 2$ and $\angle 6$ D $\angle 2$ and $\angle 8$</p>	C
44.	<p>Which of these angles is not congruent to $\angle 5$?</p> <p>A $\angle 8$ B $\angle 6$ C $\angle 1$ D $\angle 4$</p>	B
45.	<p>In the diagram below, $\angle DBC$ measures 5 degrees less than $\angle C$, and $\angle D$ measures 8 degrees more than $\angle C$. What is the measure of $\angle DBA$?</p> 	126°