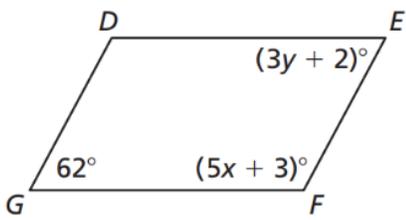


Quadrilaterals:

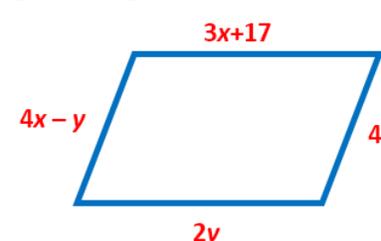
<p>1) Fill in the blank. Choices: RECTANGLE RHOMBUS SQUARE TRAPEZOID A quadrilateral with all congruent is a _____ or a _____.</p>	<p>2) Name all the quadrilaterals that are parallelograms (opposite sides are parallel). a) Parallelograms b) _____ c) _____ d) _____</p>
<p>3) A square is also a _____ since all its angles are right angles. A square is also a _____ since all its sides are congruent.</p>	<p>4) If a quadrilateral has only one pair of parallel sides then it is a _____. 5) The base angles in an _____ trapezoid are _____.</p>
<p>6) If the quadrilateral is a parallelogram then... a) The opposite angles are _____. b) The opposite sides are _____. c) The consecutive angles are _____. d) The diagonals _____ each other.</p>	<p>7) If the quadrilateral is a _____ then the diagonals are congruent. 8) If the quadrilateral is a _____ or a _____ then diagonals are perpendicular.</p>

Use separate paper

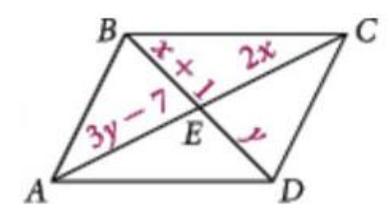
9) $\square DEFG$ is a parallelogram. Find the the value of x and y .



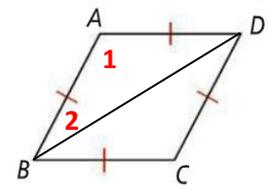
10) Find the values of x and y that will make the quadrilateral be a parallelogram.



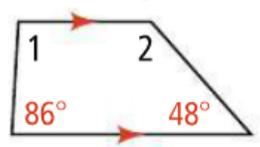
11) $ABCD$ is a parallelogram. Find the value of x and y .



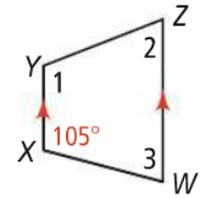
12) The figure shown is a rhombus. If $m\angle C = 116^\circ$ fill in the measure of all other angles.



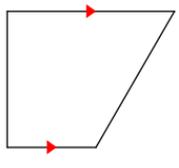
13) Find the mesasure of the numbered angles and give the name of the quadrilateral.

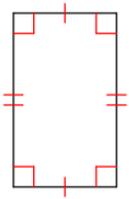


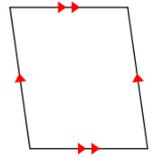
14) The figure is an **isosceles** trapezoid. Find the measure of the numbered angles.

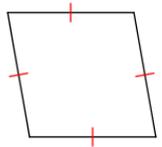


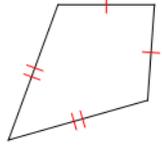
15) Name each quadrilateral. Choose one unique name for each.

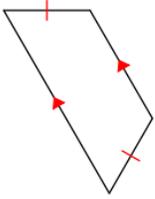
(a) 

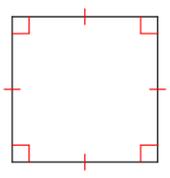
(b) 

(c) 

(d) 

(e) 

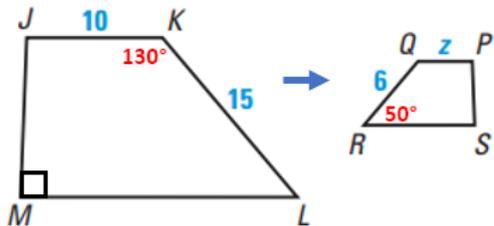
(f) 

(g) 

Similarity, Pythagorean Theorem and Special Right Triangles

16) Quad $JKLM \sim$ Quad $PQRS$

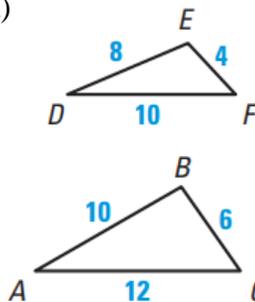
- Find the scale factor.
- Find the value of z
- Find $m\angle S$, $m\angle L$ and $m\angle J$



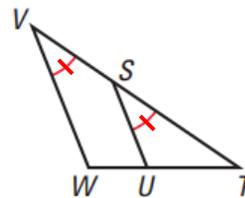
17) Determine if each pair of triangles are similar.

Justify.

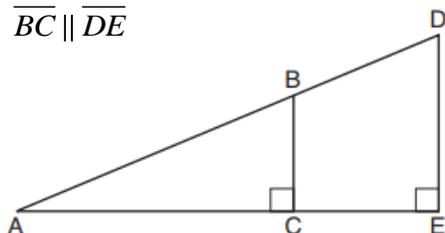
a)



b)



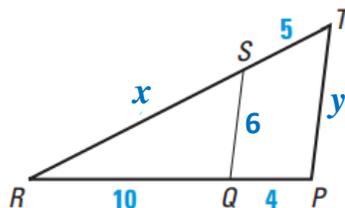
18) $\overline{BC} \parallel \overline{DE}$



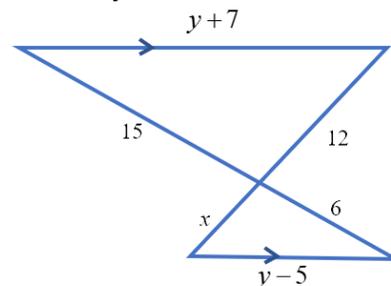
Fill in each equation to make it true:

a) $\frac{AB}{BD} = \frac{AC}{AD}$ b) $\frac{BC}{DE} = \frac{AC}{AD}$

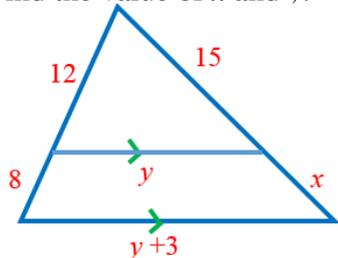
19) $\triangle RSQ \sim \triangle RTP$. Write and solve a proportion to find the value of each variable.



20) Mark each pair of congruent angles. Find the value of x and y .

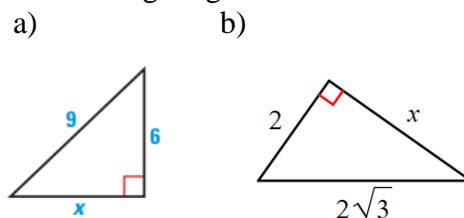


21) Find the value of x and y .

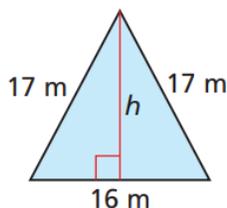


22) I'm 6 feet tall and my shadow at noon today was 4 ft 6 inches. If the shadow of the goal post was 22 ft, how tall is the goal post?

23) Use the Pythagorean Theorem to find the missing lengths. Exact answers.

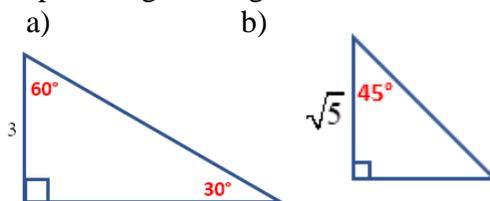


24) Find the area of the triangle.

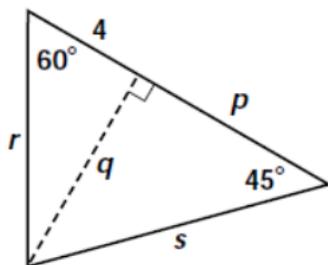


25) If the diagonal of a rectangle is 13 cm and one side is 5 cm, what is the perimeter of the rectangle. Draw the figure and label the given information

26) Fill in the missing side length on each special right triangle.



27) Find the value of each variable.



Exact Answers:

- The height of an equilateral triangle is 18. Find the perimeter of the triangle.
- The perimeter of an equilateral triangle is 24. Find the area.
- The perimeter of a square is 24, find the length of the diagonal.

31) Find the area and perimeter of the figure. Exact answers.

