Bellwork Geometry Friday, January 24, 2020

Use the Quadrilateral Tree Diagram to fill in the blanks of each statement with a single word that makes a true statement. Don't use the same word twice.

1. _____ Parallelograms are Rectangles.

2. _____ Isosceles Trapezoid is a Trapezoid.

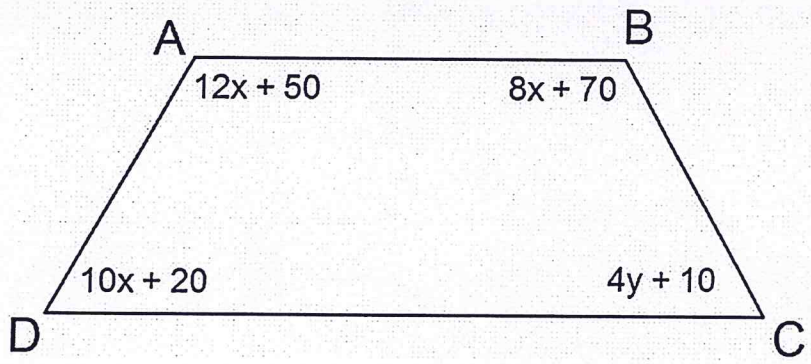
3. If a figure is a _____, then it is a Rhombus.

4. _____ Kites are Quadrilaterals.

5. Use the fact that $ABCD$ is an Isosceles Trapezoid to find the value of each variable and then the measure of each of the four angles.

$x =$ _____ $y =$ _____.

$\angle A =$ _____ $\angle B =$ _____ $\angle C =$ _____ $\angle D =$ _____



Bellwork Geometry Friday, January 24, 2020 ANSWERS

Use the Quadrilateral Tree Diagram to fill in the blanks of each statement with a single word that makes a true statement. Don't use the same word twice.

1. SOME Parallelograms are Rectangles.

2. EVERY Isosceles Trapezoid is a Trapezoid.

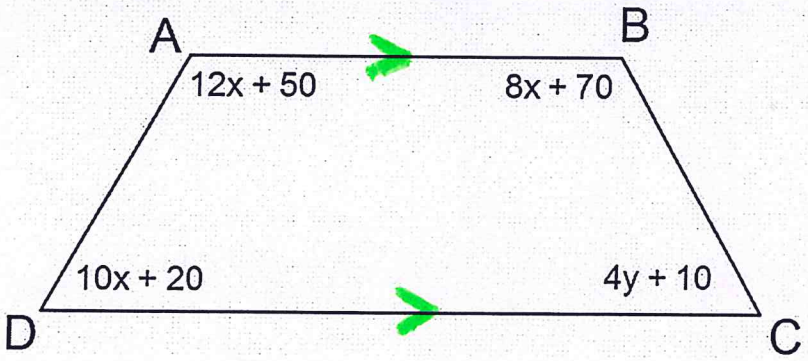
3. If a figure is a SQUARE, then it is a Rhombus.

4. ALL Kites are Quadrilaterals.

5. Use the fact that $ABCD$ is an Isosceles Trapezoid to find the value of each variable and then the measure of each of the four angles.

$x =$ 5 $y =$ 15

$\angle A =$ 110° $\angle B =$ 110° $\angle C =$ 70° $\angle D =$ 70°



BOTH PAIR OF BASE $\angle$'s ARE CONGRUENT

$12x+50 = 8x+70$

$-8x \quad -8x$

$4x+50 = 70$

$-50 \quad -50$

$\frac{4x}{4} = \frac{20}{4}$

$x = 5$

OR SINCE $\overline{AB} \parallel \overline{DC}$

$\angle$s A & D ARE SAME-SIDE INTERIOR ANGLES AND ARE SUPPLEMENTARY:

$12x+50 + 10x+20 = 180$

$22x+70 = 180$

$-70 \quad -70$

$\frac{22x}{22} = \frac{110}{22}$

$x = 5$

$\angle A = 12(5)+50 = 110°$

$\angle B = 110°$

$\angle D = 10(5)+20 = 70°$

$\angle C = 70°$

$70° = 4y+10$

$60 = 4y$

$y = 15$