REVIEW!

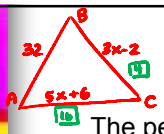
The perimeter of ΔABC is 52.

AB = 32

BC = 3x – 2

AC = 5x + 6

Is ΔABC equilateral, isosceles, or scalene?



$32 + 3x - 2 + 5x + 6 = 52$

$8x + 36 = 52$

$8x = 16$

$x = 2$

SCALENE

The perimeter of ΔABC is 52.

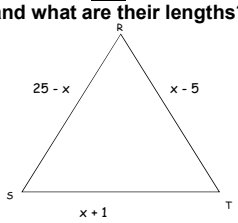
AB = 32

BC = 3x – 2

AC = 5x + 6

Is ΔABC equilateral, isosceles, or scalene?

ΔRST is isosceles.
What are the <u>two</u> possible bases and what are their lengths?



$25 - x = x - 5$

$-2x = -30$

$x = 15$

BASE $\overline{ST} = x + 1 = 15 + 1 = 16$

$25 - x = x + 1$

$-2x = -24$

$x = 12$

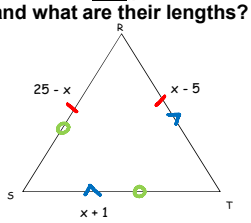
BASE $\overline{RT} = x - 5 = 12 - 5 = 7$

$x + 1 = x - 5$

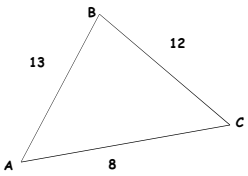
$0 \neq -6$

Not possible

ΔRST is isosceles.
What are the <u>two</u> possible bases and what are their lengths?



Given: m∠A = (x + 5)°
m∠C = (2x – 1) °
Find the restrictions on x.



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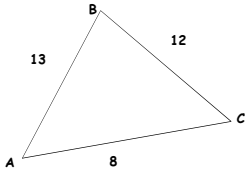
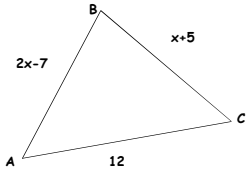


$\measuredangle A < \measuredangle C$
$x+5 < 2x-1$
$6 < x$

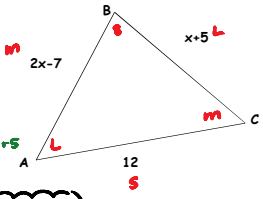
$\measuredangle A + \measuredangle C < 180$
$x+5+2x-1 < 180$
$3x+4 < 180$
$3x < 176$
$x < \frac{176}{3}$

$6 < x < \frac{176}{3}$

Given: m∠B < m∠C < m∠A
Find the restrictions on x.



Given: m∠B < m∠C < m∠A
Find the restrictions on x.



$12 < 2x-7 < x+5$

$12 < 2x-7$
$\frac{19}{2} < \frac{2x}{2}$
$9.5 < x$

$2x-7 < x+5$
$x < 12$

$9.5 < x < 12$

$\overline{AD}$ is the median to $\overline{BC}$

AD = 3x + 2
BD = 5x – 3
DC = 2x + 6

Find AD (hint: Draw a picture!)

$\overline{AD}$ is the median to $\overline{BC}$

AD = 3x + 2
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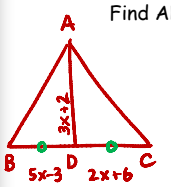
DC = 2x + 6

Find AD



$5x-3 = 2x+6$
$3x = 9$
$x = 3$

$AD = 3x+2$
$= 3(3)+2$
$= 9+2$
$= 11$

In ΔABC, AB > AC > BC.
List the angles in order from smallest to largest. Draw a picture to help you!

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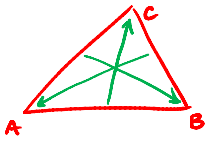
List the angles in order from smallest to largest. Draw a picture to help you!



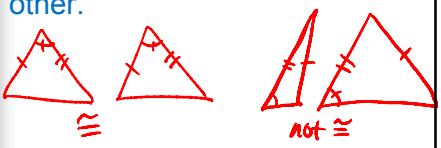
∡A, ∡B, ∡C

Always, Sometimes, never…

Two triangles are congruent if 2 sides and an angle of one are congruent to the corresponding parts of the other.

Always, Sometimes, never…

Two triangles are congruent if 2 sides and an angle of one are congruent to the corresponding parts of the other.



Always, Sometimes, never…

A right triangle is congruent to an obtuse triangle.

Always, Sometimes, never…

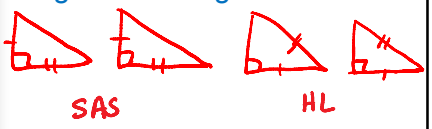
A right triangle is congruent to an obtuse triangle.

Always, Sometimes, never…

If 2 sides of a right triangle are congruent to the corresponding parts of another right triangle, the triangles are congruent.

Always, Sometimes, never…

If 2 sides of a right triangle are congruent to the corresponding parts of another right triangle, the triangles are congruent.

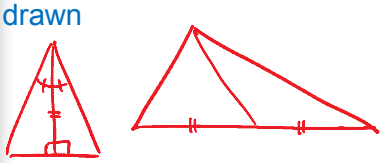


Always, Sometimes, never…

A median of a triangle bisects the angle from which it is drawn

Always, Sometimes, never…

A median of a triangle bisects the angle from which it is drawn



Always, Sometimes, never…

An isosceles triangle is equilateral

Always, Sometimes, never…

An isosceles triangle is equilateral

Always, Sometimes, never…

An equilateral triangle is isosceles

Always, Sometimes, never…

An equilateral triangle is isosceles