

SHOW ALL WORK FOR FULL CREDIT!!! INCLUDE ALL LABELS WHERE NEEDED!!!

Geometry – EXAM REVIEW
(UNIT 5: Triangle Properties)

Name Key hr

Multiple Choice.

- C 1. A triangle that has no congruent sides is called
- Isosceles
 - Right
 - Scalene
 - Equiangular

- B 2. A triangle can be both
- ~~Scalene and Equiangular~~
 - Isosceles and Acute
 - ~~Right and Equilateral~~
 - ~~Equilateral and Obtuse~~

- A 3. In $\triangle XYZ$, $m\angle X = 55^\circ$ and $m\angle Z = 65^\circ$.
The longest side is .

- \overline{XY}
- \overline{YZ}
- \overline{XZ}



- B 4. Which of the following are not sides of a triangle?

- 5, 6, 10
- 10, 10, 30 *10+10 less than 30*
- 40, 40, 40
- 50, 30, 25
- None of the above

- C 5. In $\triangle PET$, if $PE = 22$ and $ET = 14$, PT can be .
- $$22-14 \quad 22+14$$
- $$8 < x < 36$$
- 36
 - 7
 - 28
 - 8

- C 6. Which of the following terms can be used to describe a triangle that has two equal sides?
- Acute
 - Equilateral
 - Isosceles
 - Scalene

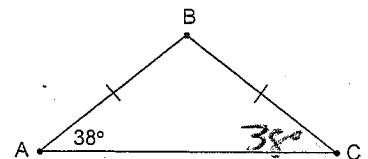
- C 7. The angle opposite \overline{RM} in $\triangle MNR$ is

- \overline{MN}
- $\angle M$
- $\angle N$
- \overline{RM}

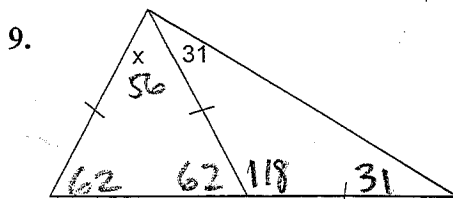


- B 8. What is the measure of $\angle C$?

- 142°
- 38°
- 104°
- 71°

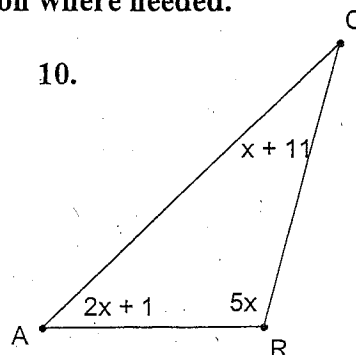


Solve for the indicated information. Set-up an equation where needed.



$x = 56^\circ$

10.



$$x+11 + 5x + 2x+1 = 180$$

$$8x + 12 = 180$$

$$8x = 168$$

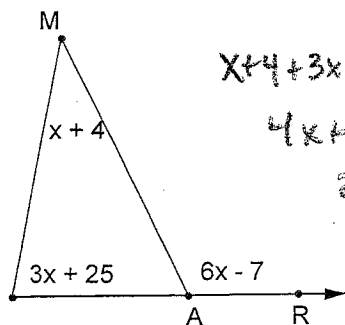
$$x = 21$$

$x = 21$

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Solve.

11.

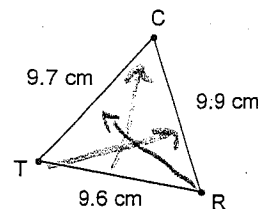


$$\begin{aligned} x + 4 + 3x + 25 &= 6x - 7 \\ 4x + 29 &= 6x - 7 \\ 29 &= 2x - 7 \\ 36 &= 2x \\ 18 &= x \end{aligned}$$

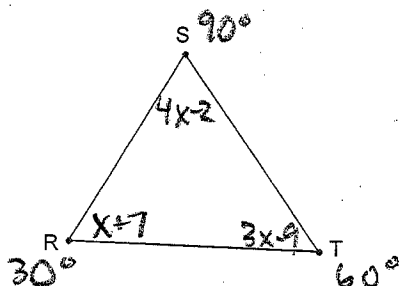
$x = 18$

2 int add to ext.

12. ∠C, ∠R, ∠T List the angles of the triangle in order from *smallest to largest*.



13. ST, RS, RT If $\angle R = x + 7$, $\angle S = 4x - 2$, and $\angle T = 3x - 9$, list the sides of the triangle from *shortest to longest*.



$$4x - 2 + x + 7 + 3x - 9 = 180$$

$$8x - 4 = 180$$

$$8x = 184$$

$$x = 23$$

14. Use a ruler and a protractor to draw the following triangle. Label the figure.

In $\triangle ZYP$, $m\angle Z = 65^\circ$, $ZY = 2.5$ inches, and $ZP = 5$ inches.

- Draw a side 1st
- Draw an angle 2nd
- Draw 3rd piece of info.

