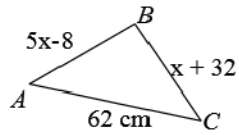
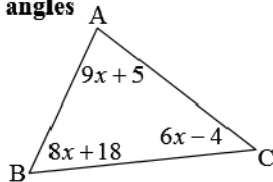


1. Solve for x , given that $\overline{AB} \cong \overline{BC}$. Is $\triangle ABC$ equilateral?



2. Solve for x , then find the measures of the interior angles. Finally, classify the triangle by angles

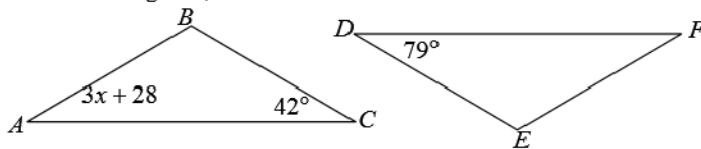


$x =$ _____ $m\angle B =$ _____

$m\angle A =$ _____ $m\angle C =$ _____

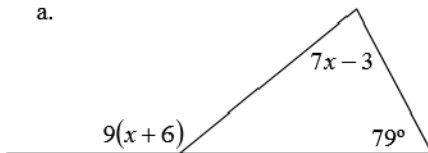
Classification by angles: _____

3. In the diagram, $\angle B \cong \angle E$ and $\angle C \cong \angle F$. Find the value of x .

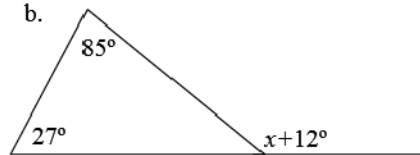


4. Find x and the measure of the exterior angle.

a.



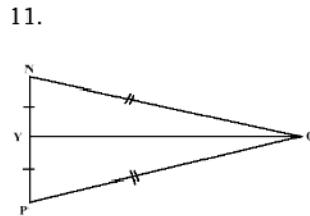
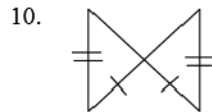
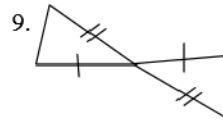
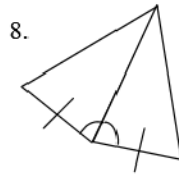
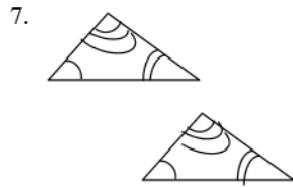
b.



5. Write the point-slope form of the equation of the line passing through $(3, 6)$ and perpendicular to the line $y = 2x + 1$.

6. Write the equation of a line parallel to $y = -\frac{2}{3}x + 12$ that has a y-intercept of 8. Leave your answer in slope-intercept form.

7-11. Which property, if any, can be used to prove these triangles congruent?



12. Use the given information to classify the triangles (scalene, isosceles, equilateral, acute, right, obtuse, equiangular).

a. 13 cm, 25 cm, 32 cm

b. 30° , 60° , 90°

c. 12 m, 12 m, 12 m

d. 20 in, 20 in, 35 in

e. 72° , 55° , 53°

f. 60° , 60° , 60°

13. Write the equation of the perpendicular bisector of \overline{AB} with $A(1,6)$ and $B(-5,10)$. Write in all 3 forms.

Show work here:

Answers:

Point-slope:

Slope-intercept:

Standard:

14. Solve using the quadratic formula: $2x^2 + 4x - 7 = 0$

15. Find the value of x .

