

APRIL 2, 2015

5TH
6TH

STARTER

① $2\frac{1}{2} \times 3\frac{1}{3}$
 $= \frac{5}{2} \times \frac{10}{3}$
 $= \frac{25}{3} = 8\frac{1}{3}$

② $4\frac{1}{2} \times 2\frac{4}{5}$
 $= \frac{9}{2} \times \frac{14}{5}$
 $= \frac{63}{5} = 12\frac{3}{5}$

③ $12 \times 3\frac{2}{3}$
 $= 12 \times \frac{11}{3}$
 $= 44$



4/2 Triangles

New vocabulary word: **TRIANGLE**

Polygon with 3 sides

With your partner, name as many types of triangles as you can! Be prepared to describe them too.

Acute

Scalene

Obtuse

Equilateral

Right

Equiangular

Isosceles

Classifying Triangles Using Angles

acute
triangle



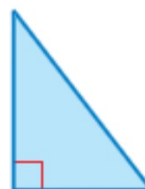
all acute angles

obtuse
triangle



1 obtuse angle

right
triangle



1 right angle

equiangular
triangle



3 congruent angles

Classifying Triangles Using Sides

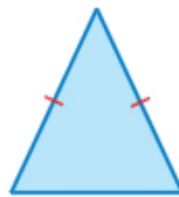
Congruent sides have the same length.

scalene triangle



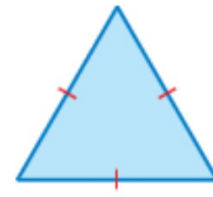
no congruent sides

isosceles triangle



at least 2 congruent sides

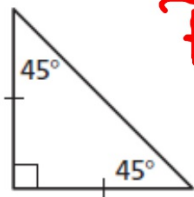
equilateral triangle



3 congruent sides

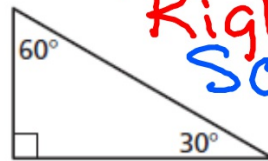
Classify the triangle.

1.



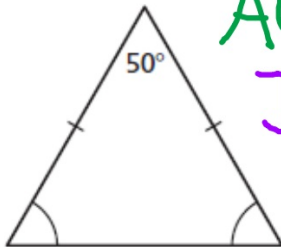
Right
Isosceles

2.



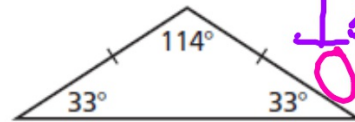
Right
Scalene

3.



Acute
Isosceles

4.



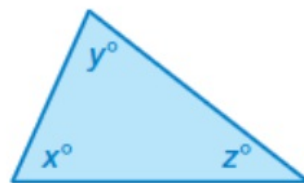
Isosceles
Obtuse

Key Idea

Sum of the Angle Measures of a Triangle

Words The sum of the angle measures of a triangle is 180° .

Algebra $x + y + z = 180$



Find the value of x . Then classify the triangle.

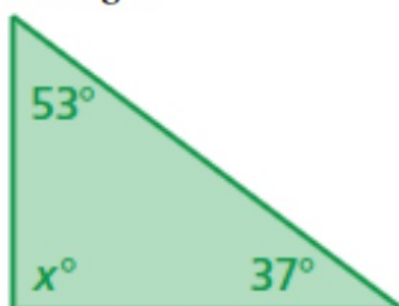


$$x + 78 + 27 = 180$$

$$x + 105 = 180$$

-105 -105

$$x = 75$$



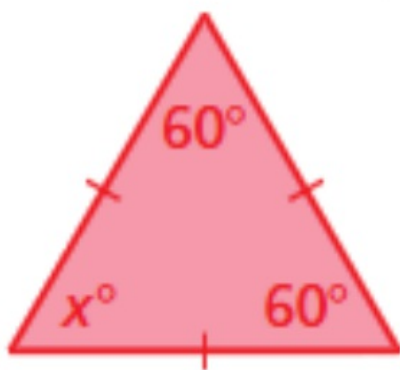
$$x + 53 + 37 = 180$$

$$x + 90 = 180$$

-90 -90

$$x = 90$$

twenny



$$x + 60 + 60 = 180$$

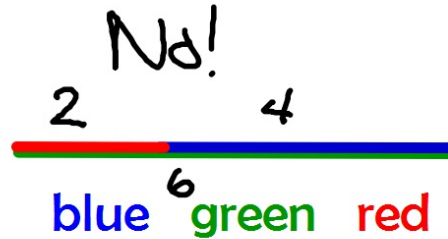
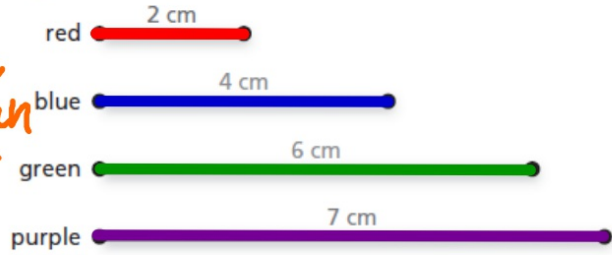
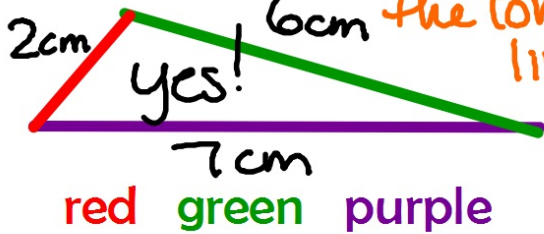
$$x + 120 = 180$$

-120 -120

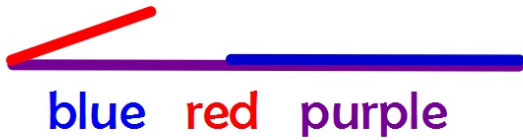
$$x = 60$$

Can you create a triangle using the given combination of these colored segments?

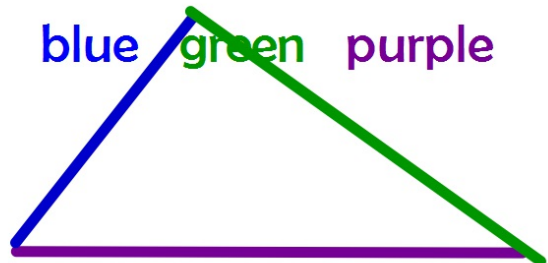
The 2 small lines have to add up to be bigger than the longest line.



No!



blue green purple



yes 4, 3, 2, 8

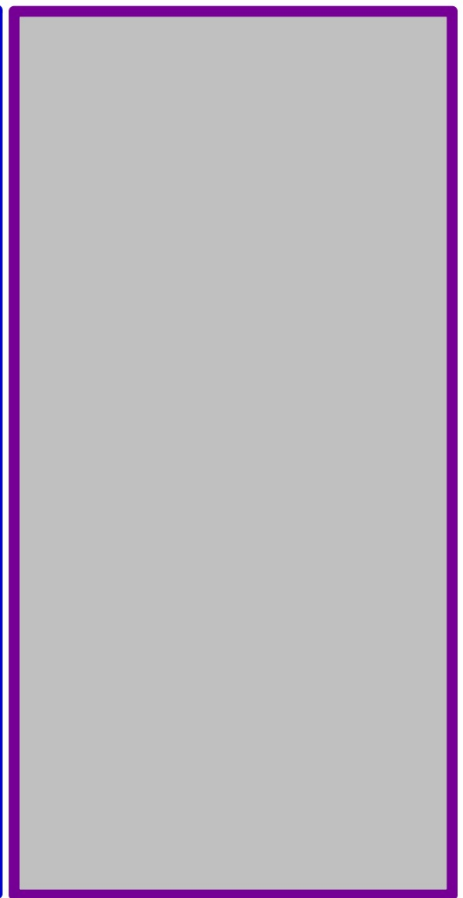
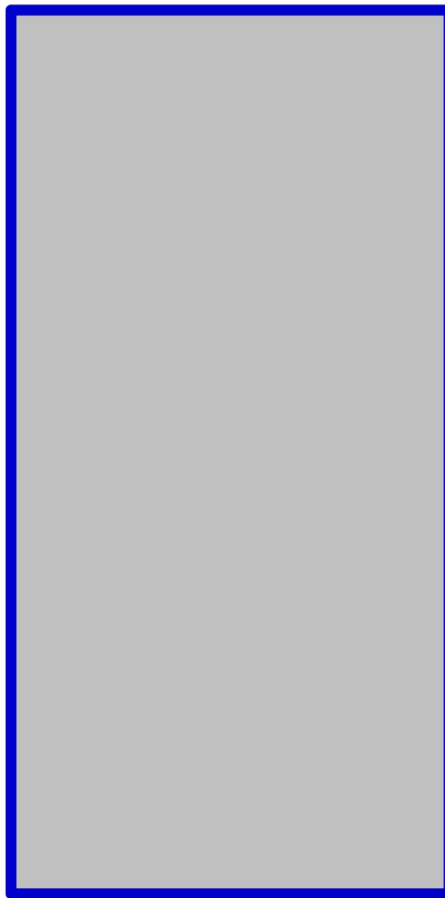
No 4, 12, 7

So, 3, 7, 13
No

Tell whether a triangle can have the given angle measures. If not, change the first angle measure so that the angle measures form a triangle.

$25^\circ, 64^\circ, 91^\circ$

5



HOMWORK

DUE