APRIL 2, 2015

STARTER

① $2\frac{1}{2} \times 3\frac{1}{3}$ ② $4\frac{1}{2} \times 2\frac{4}{5}$

③ $12 \times 3\frac{2}{3}$

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

Obtuse

Right

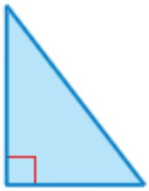
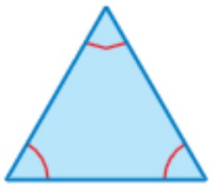
Scalene

Equilateral

Equiangular

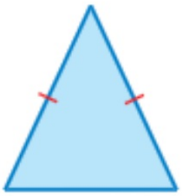
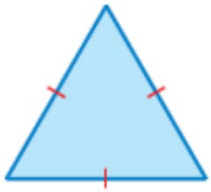
Isosceles

Classifying Triangles Using Angles

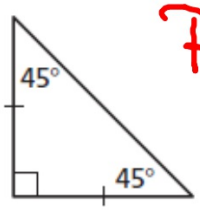
acute triangle	*obtuse* triangle	*right* triangle	*equiangular* triangle
			
all acute angles	1 obtuse angle	1 right angle	3 congruent angles

Classifying Triangles Using Sides

Congruent sides have the same length.

scalene triangle	*isosceles* triangle	*equilateral* triangle
		
no congruent sides	at least 2 congruent sides	3 congruent sides

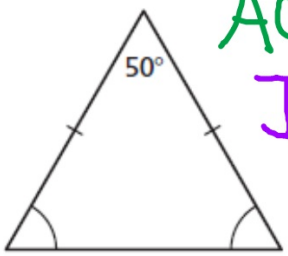
Classify the triangle.

1. 

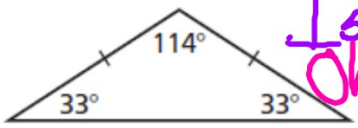
Right Isosceles

2. 

Right Scalene

3. 

Acute Isosceles

4. 

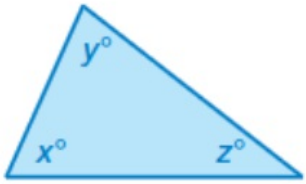
Isosceles Obtuse

Key Idea

Sum of the Angle Measures of a Triangle

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

Algebra $x + y + z = 180$



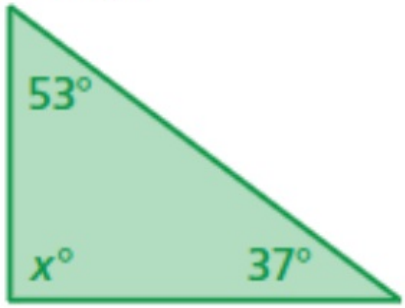
Find the value of x. Then classify the triangle.

$x + 78 + 27 = 180$

$x + 105 = 180$

$-105 \quad -105$

$x = 75$



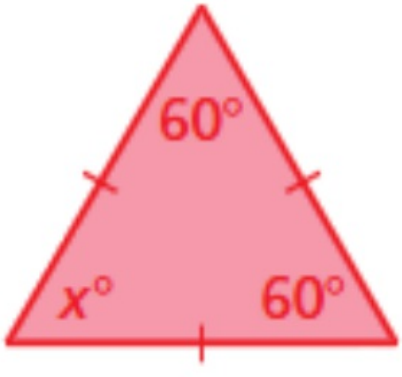
$x + 53 + 37 = 180$

$x + 90 = 180$

$-90 \quad -90$

$x = 90$

twenny



$x + 60 + 60 = 180$

$x + 120 = 180$

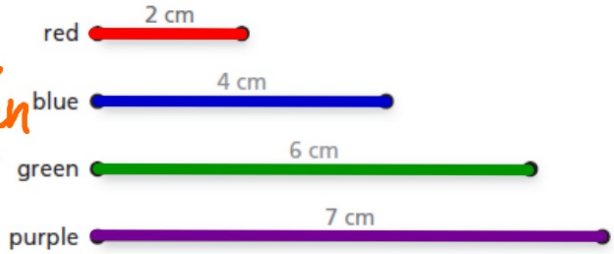
$-120 \quad -120$

$x = 60$

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.

red green purple



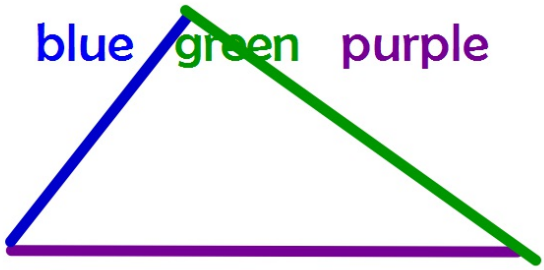
No!

blue green red

No!

blue red purple

blue green purple



Yes 49 32, 28

No 4, 12, 7

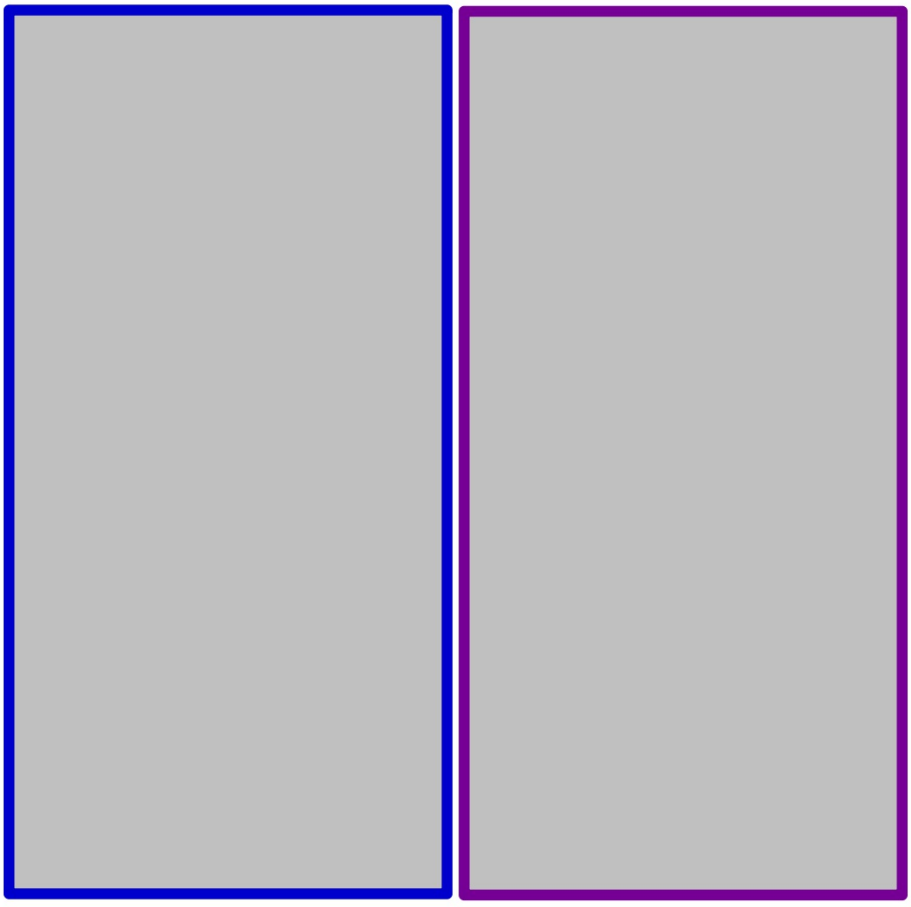
So, 37, 13

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.

5

25°, 64°, 91°




HOMEWORK


DUE