THE CHALLENGE: SEE HOW MANY OF THESE PROBLEMS YOU CAN SOLVE IN 10 MINUTES!!!

Directions: Write the angles and sides in order from least to greatest.

1) In ΔTUV
   UV = 17 yd
   TV = 14 yd
   TU = 9 yd

TU, TV, UV

2) In ΔABC
   m∠A = 40°
   m∠B = 80°
   m∠C = 60°

m∠A, m∠C, m∠B

Directions: Classify the triangle by its angles and its sides.

3) m ∠A = 4x
   m ∠B = 5x
   m ∠C = 9x

* Draw a Picture
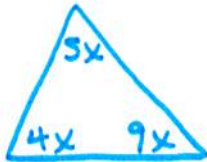
$5x + 4x + 9x = 180$

$\dfrac{18x}{18} = \dfrac{180}{18}$

$x = 10$

→ Plug in to all ∠'s.

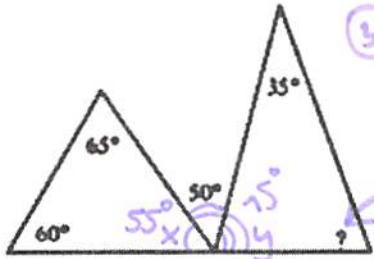$m\angle A = 4(10) = 40°$
$m\angle B = 5(10) = 50°$
$m\angle C = 9(10) = 90°$

Right Δ

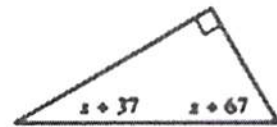*Directions: Find the measure of each angle in the triangle.*

③ $75 + 35 + ? = 180$
$110 + ? = 180$
$-110 \quad -110$
$\boxed{70°}$

5)

Linear Pair:

A:
① $60 + 65 + x = 180$
$125 + x = 180$
$-125 \quad -125$
$x = 55$

② $55 + 50 + y = 180$
$105 + y = 180$
$-105 \quad -105$
$y = 75$

Directions: Determine if the side lengths could be used to make a triangle.

6) 5, 9, 15
$5 + 9 = 14$
$\boxed{NO}$
$14 \not= 15$

7) 3, 3, 6

* the sum of the smaller sides has to
be greater than the longest side

Directions: Find the range of possible measures for the third side of the triangle.

8) 5, 9
$5 + 9 = 14 - Largest$
$9 - 5 = 4 - Smallest$
$\boxed{4 < X < 14}$

9) 12, 6

* Add sides to get largest possibility &
subtract sides to get smallest possibility.