Find BC if $\overline{CG}$ is a median of $\triangle ABC$.

C

$x+2$ $2x+1 = 2 \cdot 3 + 1 = 7$

A $4x+2$ G $2x+8$ B

$$4x+2 = 2x+8$$
$$x = 3$$
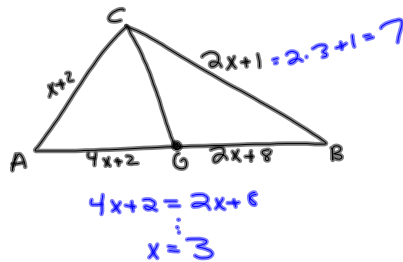
Which could be $\triangle s$.

A.) 2, 5, 6 ✓ 3 → 7

B.) 3, 1, 5 ✗ 2 → 4

C.) 2, 8, 10 ✗ 6 → 10

D.) 1, 1, 1 ✓ 0 → 2

Tell what the 3ⁿᵈ side must fall between if given the following 2 legs.

A.) 2, 8 $6 < m < 10$

B.) 3, 3 $0 < m < 6$

C.) 1, 100 $99 < m < 101$

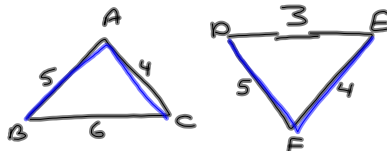In $\triangle ABC$, $\angle A = 4x$, $\angle B = 3x-15$, $\angle C = 4x+30$. Determine the longest and shortest side.
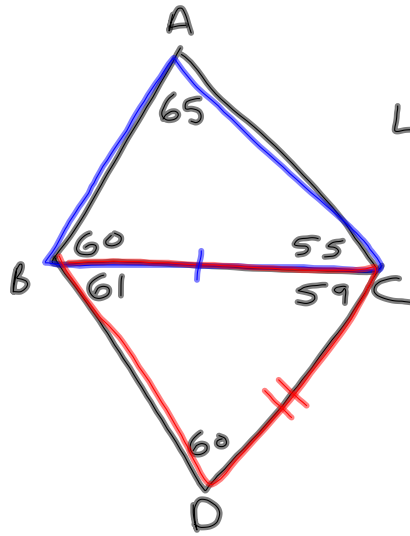
A
4x
60°

Longest = $\overline{AB}$
Shortest = $\overline{AC}$

B 30° 3x-15   90° 4x+30   C

$$4x + 3x - 15 + 4x + 30 = 180°$$
$$11x + 15 = 180°$$
$$\underline{-15 \quad -15}$$
$$\frac{11x}{11} = \frac{165}{11}$$
$$x = 15$$

A
5   4
B   6   C

D —3— E
5   4
F

$\angle A > \angle F$

1

A

65

60   55
B   61   59 C

60

D

Longest Side
is $\overline{CD}$

A

60

61   59°
B   61   59 C

60

D
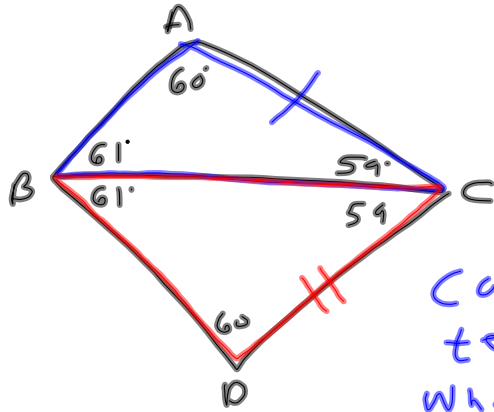
Can't
tell
Which is
larger.

5   6

1 2 3 4   7
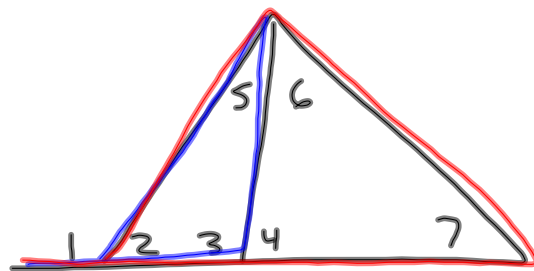
∠1 is larger than which ∠'s?
∠3, ∠5, ∠6, ∠7

A

D

B   C

Draw altitude $\overline{BD}$.

C

H

$5x$

$x+4$

A $x+6$ B
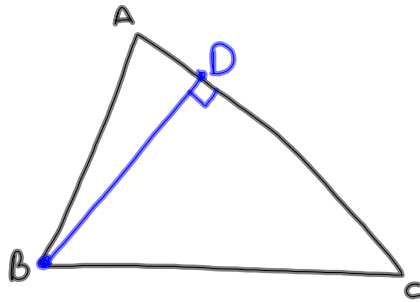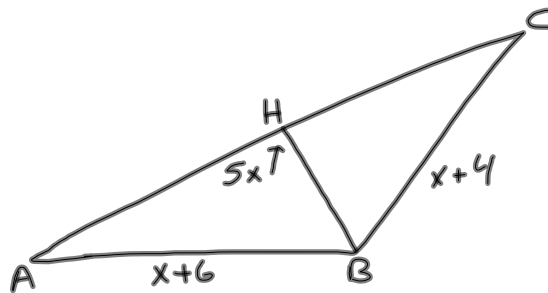
If $\overline{BH}$ is an altitude, what is BC?

$$\frac{5x}{5} = \frac{90}{5}$$

$$x = 18$$

Tell what the third side of
a △ must fall between given
2 of the 3 sides.

a.) 2, 6 $4 < m < 8$

b.) 3, 7 $4 < m < 10$

c.) 4, 4 $0 < m < 8$

Which could be △s.

✓a.) 2, 5 6   3   7

✗b.) 3, 3 10   0   6

✗c.) 4, 5 9   1   9

✓d.) 2, 2 2   0   4

In △ABC, A = (2,3)
B = (3,5) C = (6,7).

Which angle is the largest angle?   ⟨∠B⟩

A = (2,3)

$\sqrt{\Delta x^2 + \Delta y^2}$

$\sqrt{1^2 + 2^2}$
$\sqrt{5}$

$\sqrt{4^2 + 4^2}$
$\sqrt{32}$

B (3,5) $\sqrt{3^2 + 2^2}$ C = (6,7)
$\sqrt{13}$

A
6
B   5   C

X   6   Z
5   4
Y

∠C > ∠X

B
59° 60° ‖
A 61°   59° D

60° 61°
C

$\overline{BD}$ is largest side

B
60° ‖
C 61°   59° A
61°   59°
60° ‖
D

7 6
1 2 3 4   5
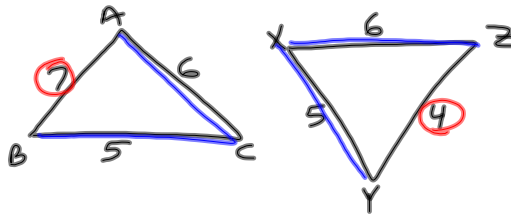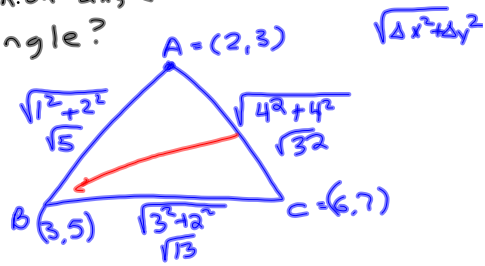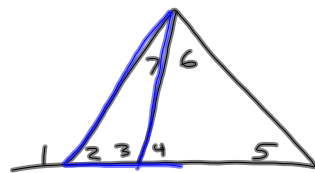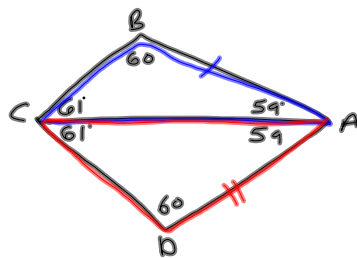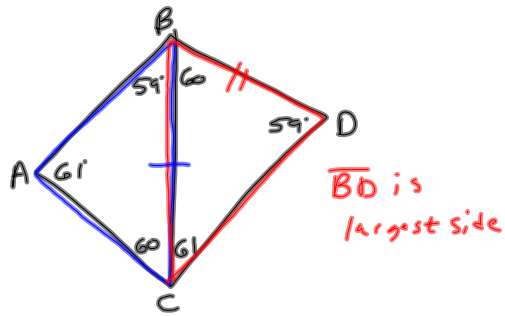
∠4 is larger than what angles?
∠2, ∠7

4