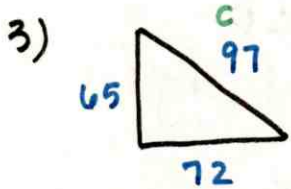
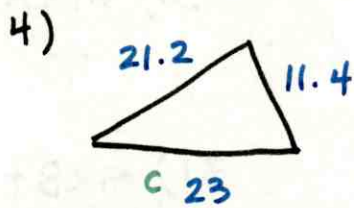


7.2



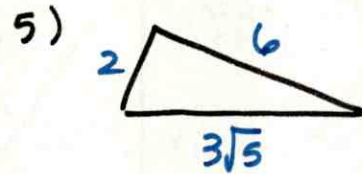
97^2 = 65^2 + 72^2
9409 = 4225 + 5184
9409

Right



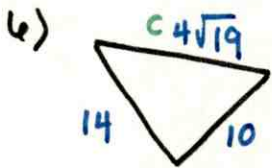
23^2 < 21.2^2 + 11.4^2
529 < 449.44 + 129.96
579.4

Acute
Not a rt Δ



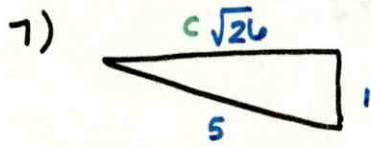
(3√5)^2 > 2^2 + 2^2
45 > 36 + 4

Obtuse
Not a rt Δ



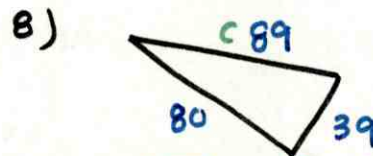
(4√19)^2 > 14^2 + 10^2
304 > 196 + 100
296

Obtuse
Not a rt Δ



(√26)^2 = 12^2 + 5^2
26 = 1 + 25
26

Right



89^2 = 80^2 + 39^2
7921 = 6400 + 1521
7921

Right

10) 9, 10, and 15

15^2 > 9^2 + 10^2
225 > 81 + 100
181

Obtuse
Not a rt Δ

12) 6, 10, and 2√34

(2√34)^2 = 6^2 + 10^2
136 = 36 + 100
136

Right

14) 10, 12, and 20

20^2 > 10^2 + 12^2
400 > 100 + 144
244

Obtuse
Not a rt Δ

16) 10, 15, and 5√13

10 + 15 > 5√13 ✓

(5√13)^2 = 10^2 + 15^2
325 = 100 + 225
325

Right

18) 5, 6, and 7

5 + 6 > 7 ✓

7^2 < 5^2 + 6^2
49 < 25 + 36
61

Acute

20) 8, 10, and 12

8 + 10 > 12 ✓

12^2 < 8^2 + 10^2
144 < 64 + 100
164

Acute

22) 6, 8, and 10

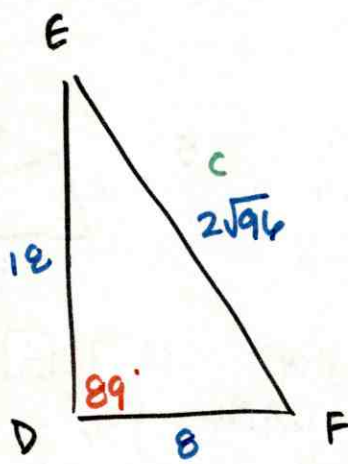
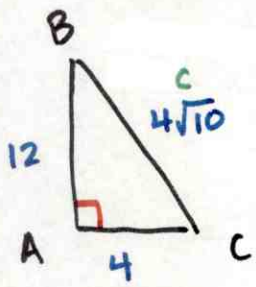
6 + 8 > 10 ✓

10^2 = 6^2 + 8^2
100 = 36 + 64
100

Right

24) which side lengths do NOT form a rt Δ?

- A. 5, 12, 13 B. 10, 24, 28 C. 15, 36, 39 D. 50, 120, 130
- 13^2 = 5^2 + 12^2 28^2 > 10^2 + 24^2 39^2 = 15^2 + 36^2 130^2 = 50^2 + 120^2
obtuse



$$30) m\angle A \geq m\angle D$$

90°
acute angle

$$31) m\angle B + m\angle C < m\angle E + m\angle F$$

$180 - 90 = 90$
 $180 - 89 = 91$

or any acute angle

$$(4\sqrt{10})^2 \stackrel{?}{=} 12^2 + 4^2$$

$$160 \quad 144 + 16$$

$$160 \quad 160$$

Right Δ

$$(2\sqrt{96})^2 < 18^2 + 8^2$$

$$384 \quad 324 + 64$$

$$384 \quad 388$$

Acute Δ

32) 6, 8, x

$$x^2 = 6^2 + 8^2$$

$$x^2 < 6^2 + 8^2$$

$$x^2 > 6^2 + 8^2$$

$$x^2 = 36 + 64$$

$$x^2 = 100$$

$$\boxed{x = 10}$$

right

$$\boxed{x < 10}$$

Acute

$$\boxed{x > 10}$$

obtuse

$$8^2 = x^2 + 6^2$$

$$64 = x^2 + 36$$

$$28 = x^2$$

$$x = \sqrt{28}$$

$$\begin{matrix} 2 & 14 \\ 2 & \wedge 7 \\ \hline & 7 \end{matrix}$$

$$\boxed{x = 2\sqrt{7}}$$

Right

$$\text{b/c } 8 - 6 < x < 8 + 6$$

$$2 < x < 14$$

but $x < 10$ and $x > 2$

$$\therefore 2\sqrt{2}x < 10$$

$$2\sqrt{7} < x < 10$$

$$a - b < x < a + b$$

$$10 < x < 14$$

b/c $8 - 6 < x < 8 + 6$

$$2 < x < 14$$

but $x > 10$

$$\therefore \boxed{10 < x < 14}$$

$2\sqrt{7}$ and 10