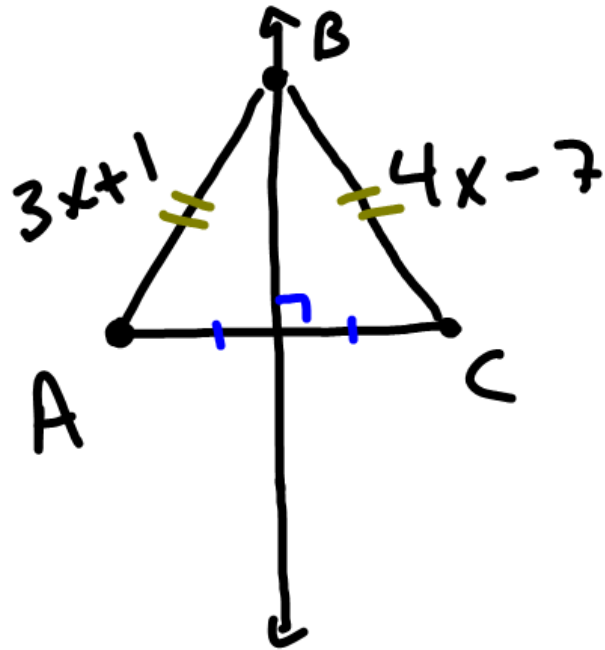


Warm-up

① Find AB



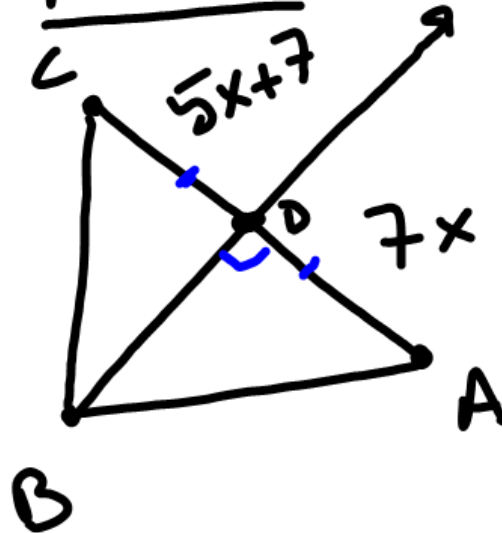
$$3x+1 = 4x-7$$

$$8 = x$$

$$AB = 3(8)+1 = \textcircled{25}$$

②

Find AC



$$7(3.5) = 24.5$$

$$5x+7 = 7x$$

$$-5x \quad -5x$$

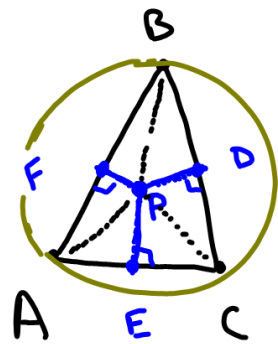
$$\frac{7}{2} = \frac{2x}{2}$$

$$3.5 = x$$

$$AC = 49$$

5.2b Concurrency

Concurrent lines/rays/segments - When 3 or more meet (intersect) at the same point.



Point of Concurrency
The point where they all meet. (P)

P is equidistant from A, B, C
or $\overline{PA} \cong \overline{PB} \cong \overline{PC}$
(think radius of circle)
with center @ P

If $PA = 6$, find PB & PC $PB = 6$ $PC = 6$

If $BD = 10$, find CD & BC $CD = 10$ & $BC = 20$

If $PC = 5$ & $DC = 3$, find PD



$$\text{leg}^2 + \text{leg}^2 = \text{hyp}^2$$

$$3^2 + x^2 = 5^2$$

$$9 + x^2 = 25$$

$$-9 \quad -9$$

$$\sqrt{x^2} = \sqrt{16}$$

$$x = 4$$

$$\text{PD} = 4$$