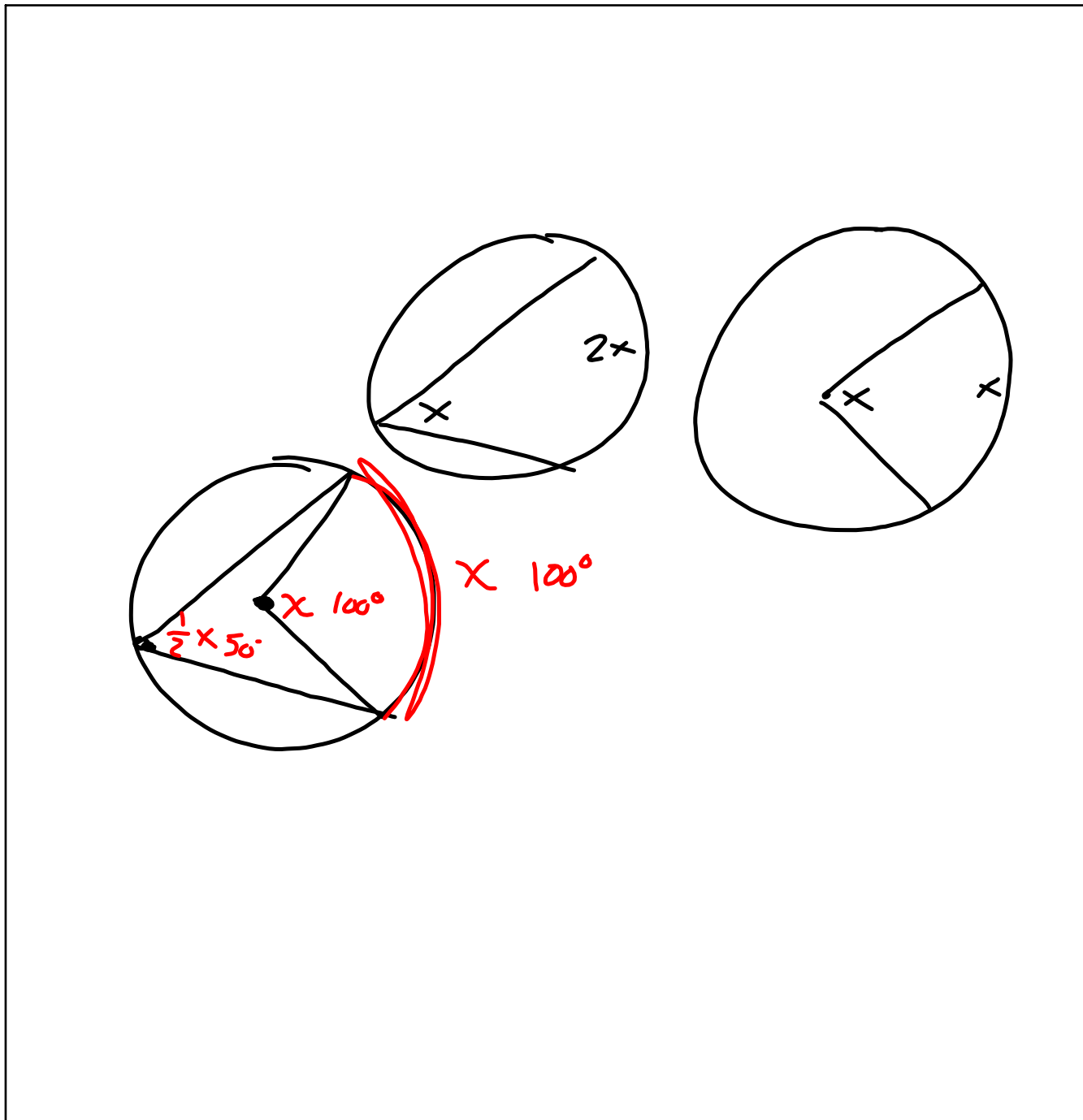
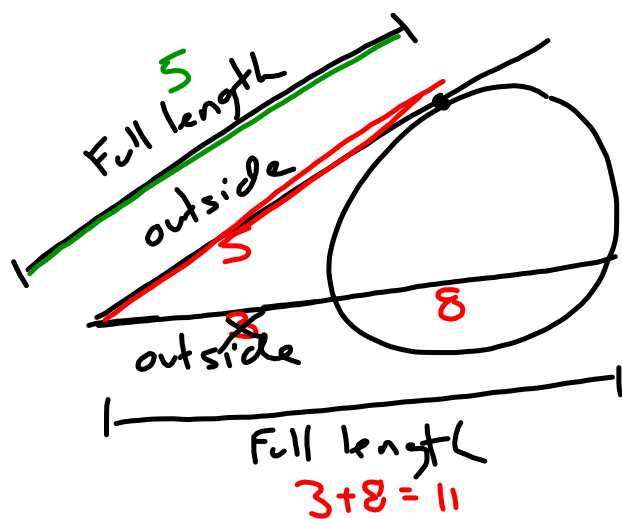


$$x(5+x) = 3(3)$$

$$5x + x^2 = 24$$

$$x^2 + 5x - 24 = 0$$

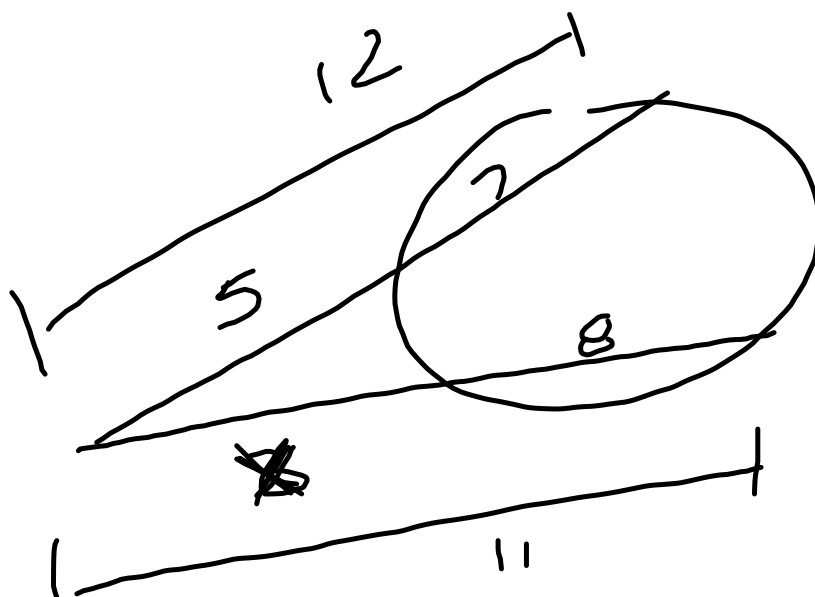




$$5(5) = \cancel{8}(11)$$

$$25 = 11x$$

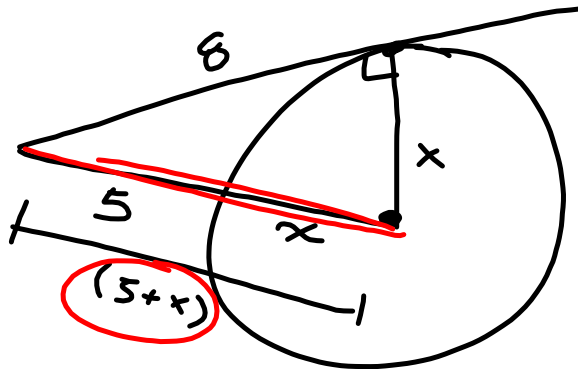
$$\frac{25}{11} = x$$



$$5(12) = x(11)$$

$$60 = 11x$$

$$60/11 = x$$



$$x^2 + 8^2 = (5+x)^2$$

$$x^2 + 64 = x^2 + 10x + 25$$

$$\begin{array}{r}
 \cancel{x^2} + 64 = \cancel{x^2} + 10x + 25 \\
 \hline
 39 = 10x
 \end{array}$$

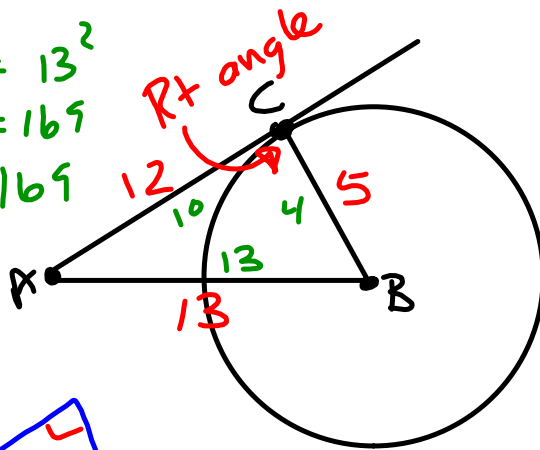
$$\frac{39}{10} = x$$

$$\begin{array}{l}
 (5+x)(5+x) \\
 25 + 5x + 5x + x^2 \\
 x^2 + 10x + 25
 \end{array}$$

$$10^2 + 4^2 = 13^2$$

$$100 + 16 = 169$$

$$116 \neq 169$$



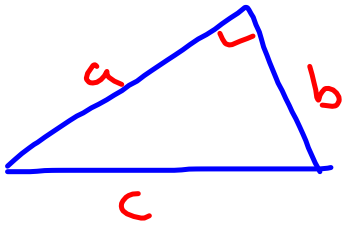
$$12^2 + 5^2 = 13^2$$

$$144 + 25 = 169$$

$$169 = 169 \checkmark$$

Is \overline{AC} tangent to circle B?

Give me possible side lengths.



$$a^2 + b^2 = c^2$$

$$3^2 + 4^2 = 5^2$$

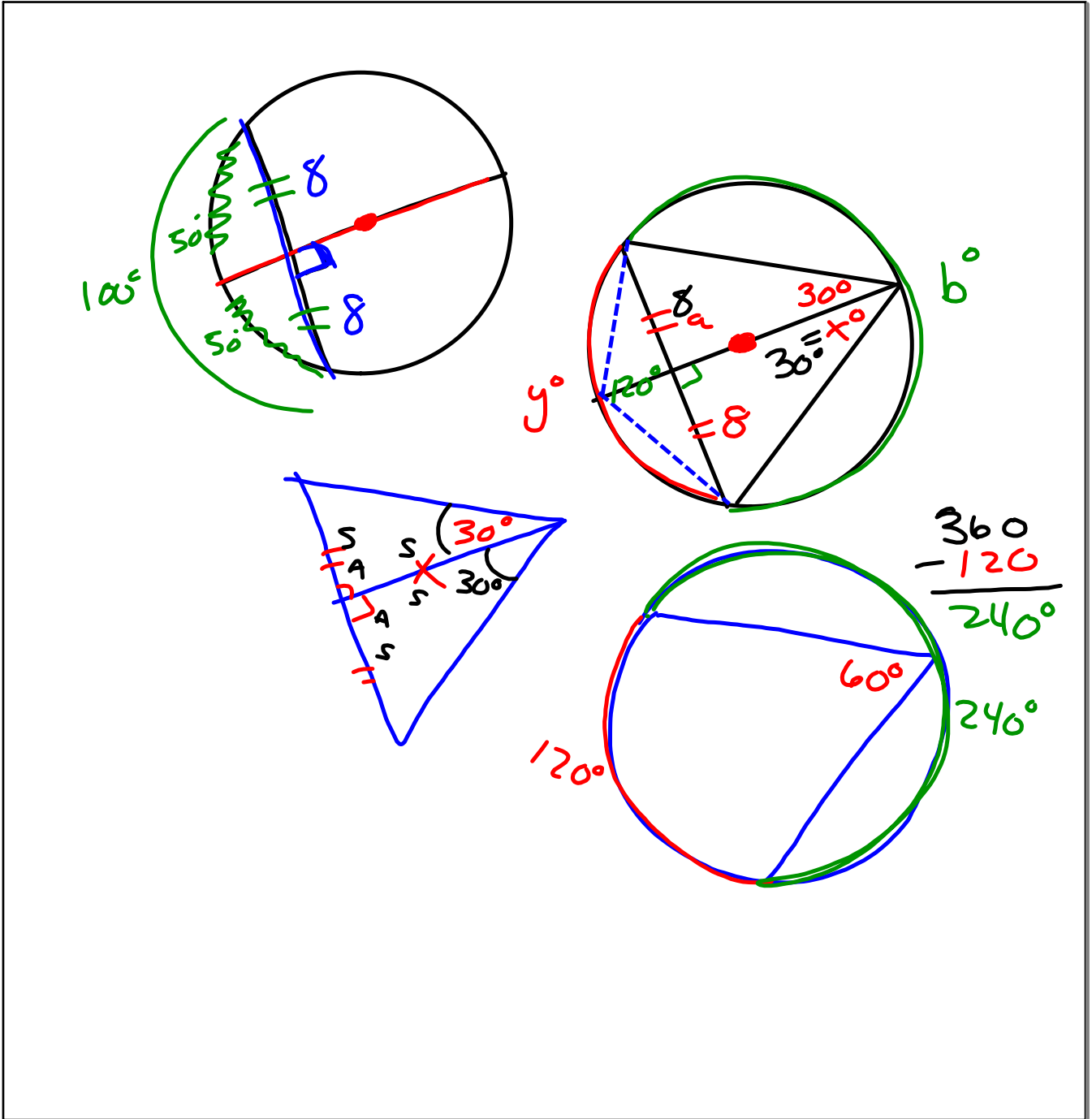
$$9 + 16 = 25$$

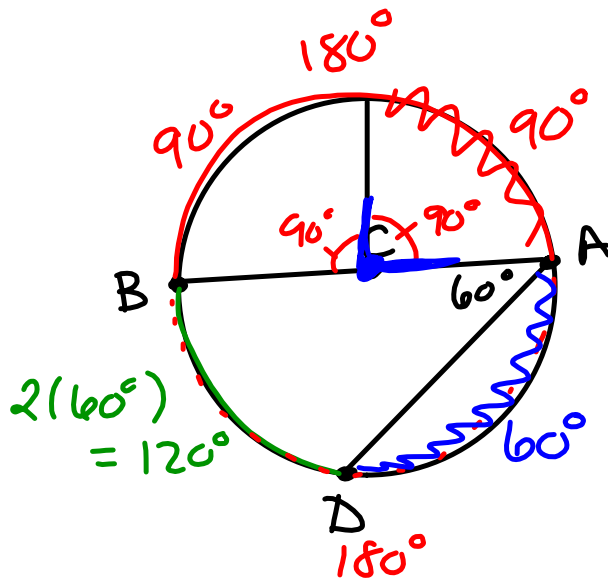
$$25 = 25 \checkmark$$

$$6^2 + 8^2 = 10^2$$

$$36 + 64 = 100$$

$$100 = 100 \checkmark$$



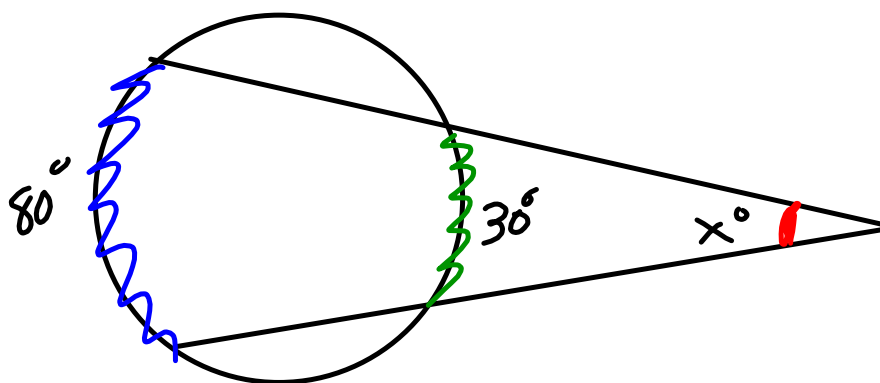


$$m\angle A = 60^\circ$$

$$m\widehat{BD} = 120^\circ$$

$$m\widehat{AD} =$$

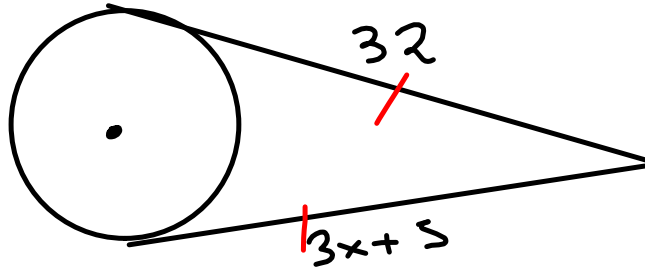
$$m\widehat{AB} =$$



$$? \frac{(80 - 30)}{2} = \frac{50}{2} = 25^\circ$$

$$? \frac{(80 + 30)}{2} = \frac{110}{2} = 55^\circ$$

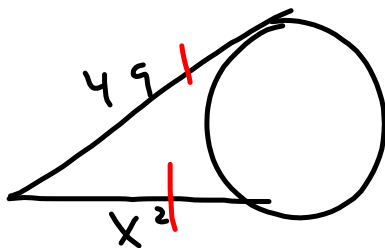
two tangents



$$3x + 5 = 32$$

$$3x = 27$$

$$x = 9$$



$$x^2 = 49$$

$$x = \pm\sqrt{49}$$

$$x = \pm 7$$

$$\text{length } x = 7$$

Secant & tangent

Full length
outside

outside
Full length

Full length
outside

outside
Full length

Secant & Secant

outside (Full length) = outside (Full length)

