

Tangent Lines and Tangent Circles

Total points = 41

1. $\frac{x}{2} = 180^\circ - (29^\circ + 90^\circ) \checkmark$
 $\frac{x}{2} = 180^\circ - 119^\circ \checkmark$
 $\frac{x}{2} = 61^\circ \checkmark$
 $x = 2(61^\circ) \checkmark$

$x = 122^\circ$ \checkmark
2. $x = 180^\circ - (42^\circ + 90^\circ) \checkmark$
 $x = 180^\circ - 132^\circ \checkmark$

$x = 48^\circ$ \checkmark
3. $x = 180^\circ - (60^\circ + 90^\circ) \checkmark$
 $x = 180^\circ - 150^\circ \checkmark$

$x = 30^\circ$ \checkmark
4. $x = 180^\circ - (45^\circ + 90^\circ) \checkmark$
 $x = 180^\circ - 135^\circ \checkmark$

$x = 45^\circ$ \checkmark

 $y = 180^\circ - (45^\circ + 90^\circ) \checkmark$
 $y = 180^\circ - 135^\circ \checkmark$

$y = 45^\circ$ \checkmark
5. $x = 90^\circ - 35^\circ \checkmark$

$x = 55^\circ$ \checkmark

 $y = 180^\circ - (35^\circ + 90^\circ) \checkmark$
 $y = 180^\circ - 125^\circ \checkmark$
6.

$y = 55^\circ$ \checkmark

 $z = 90^\circ - 35^\circ \checkmark$

$z = 55^\circ$ \checkmark
7. $x = 2(14) \checkmark$

$x = 28^\circ$ \checkmark
8. $x = 8 + 12 \checkmark$

$x = 20$ \checkmark
9. $c^2 = a^2 + b^2 \checkmark$
 $(x + 4)^2 = x^2 + 8^2 \checkmark$
 $x^2 + 8x + 16 = x^2 + 64 \checkmark$
 $8x = 64 - 16 \checkmark$
 $\frac{8x}{8} = \frac{48}{8} \checkmark$

$x = 6$ \checkmark
10. $c^2 = a^2 + b^2 \checkmark$
 $(x + 5)^2 = 5^2 + 12^2 \checkmark$
 $(x + 5)^2 = 25 + 144 \checkmark$
 $\sqrt{(x + 5)^2} = \sqrt{169} \checkmark$
 $x + 5 = 13 \checkmark$
 $x = 13 - 5 \checkmark$

$x = 8$ \checkmark

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