## Tangent Lines and Tangent Circles

Total points = 41

1. $\frac{x}{2} = 180° - (29° + 90°)$ ✓
   $\frac{x}{2} = 180° - 119°$ ✓
   $\frac{x}{2} = 61°$ ✓
   $x = 2(61°)$ ✓
   $\boxed{x = 122°}$ ✓
2. $x = 180° - (42° + 90°)$ ✓
   $x = 180° - 132°$ ✓
   $\boxed{x = 48°}$ ✓
3. $x = 180° - (60° + 90°)$ ✓
   $x = 180° - 150°$ ✓
   $\boxed{x = 30°}$ ✓
4. $x = 180° - (45° + 90°)$ ✓
   $x = 180° - 135°$ ✓
   $\boxed{x = 45°}$ ✓
   $y = 180° - (45° + 90°)$ ✓
   $y = 180° - 135°$ ✓
   $\boxed{y = 45°}$ ✓
5. $x = 90° - 35°$ ✓
   $\boxed{x = 55°}$ ✓
   $y = 180° - (35° + 90°)$ ✓
   $y = 180° - 125°$ ✓
   $\boxed{y = 55°}$ ✓
   $z = 90° - 35°$ ✓
   $\boxed{z = 55°}$ ✓
6. $x = 2(14)$ ✓
   $\boxed{x = 28°}$ ✓
7. $x = 8 + 12$ ✓
   $\boxed{x = 20}$ ✓
8. $c^2 = a^2 + b^2$ ✓
   $(x+4)^2 = x^2 + 8^2$ ✓
   $x^2 + 8x + 16 = x^2 + 64$ ✓
   $8x = 64 - 16$ ✓
   $\frac{8x}{8} = \frac{48}{8}$ ✓
   $\boxed{x = 6}$ ✓
9. $c^2 = a^2 + b^2$ ✓
   $(x+5)^2 = 5^2 + 12^2$ ✓
   $(x+5)^2 = 25 + 144$ ✓
   $\sqrt{(x+5)^2} = \sqrt{169}$ ✓
   $x + 5 = 13$ ✓
   $x = 13 - 5$ ✓
   $\boxed{x = 8}$ ✓


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