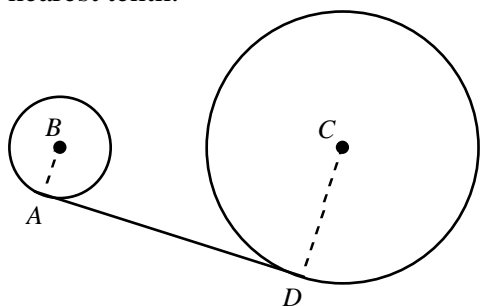


Geometry Practice: Tangents #2

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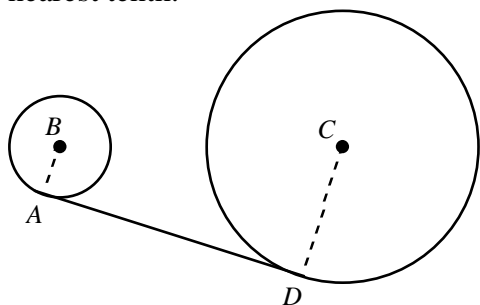
G.G.50: Investigate, justify, and apply theorems about tangent lines to a circle: a perpendicular to the tangent at the point of tangency; two tangents to a circle from the same external point; common tangent of two non-intersecting or tangent circles

1. \overline{AD} is tangent to both circles in the figure (not drawn to scale). If $BA = 9$, $AD = 23$, and $CD = 17$, find the length of \overline{BC} to the nearest tenth.



[A] 32.5 [B] 18.8 [C] 24.7 [D] 24.4

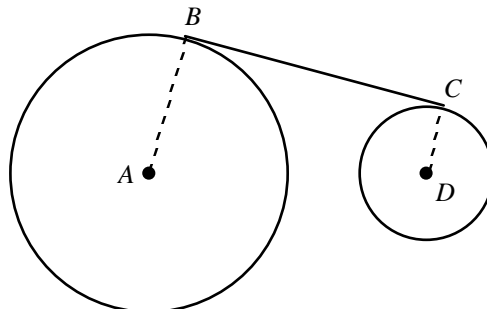
2. \overline{AD} is tangent to both circles in the figure (not drawn to scale). If $BA = 7$, $AD = 25$, and $CD = 13$, find the length of \overline{BC} to the nearest tenth.



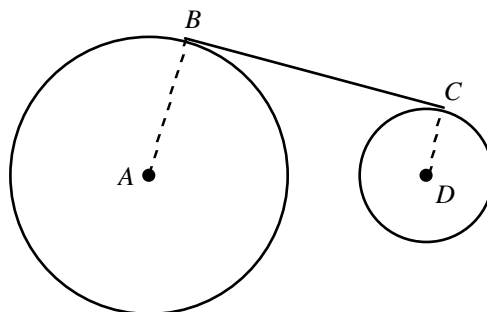
[A] 14.3 [B] 26 [C] 35.4 [D] 25.7

NAME: _____

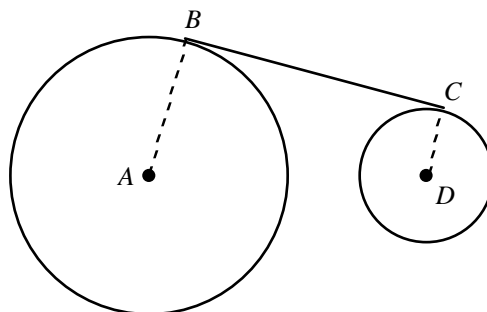
3. \overline{BC} is tangent to $\odot A$ at B and to $\odot D$ at C (not drawn to scale). If $AB = 12$, $BC = 18$, and $DC = 3$, find the length of \overline{AD} , to the nearest tenth.



4. \overline{BC} is tangent to $\odot A$ at B and to $\odot D$ at C (not drawn to scale). If $AB = 10$, $BC = 16$, and $DC = 4$, find the length of \overline{AD} , to the nearest tenth.



5. \overline{BC} is tangent to $\odot A$ at B and to $\odot D$ at C (not drawn to scale). If $AB = 9$, $BC = 19$, and $DC = 3$, find the length of \overline{AD} , to the nearest tenth.



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[1] D

[2] D

[3] 20.1

[4] 17.1

[5] 19.9