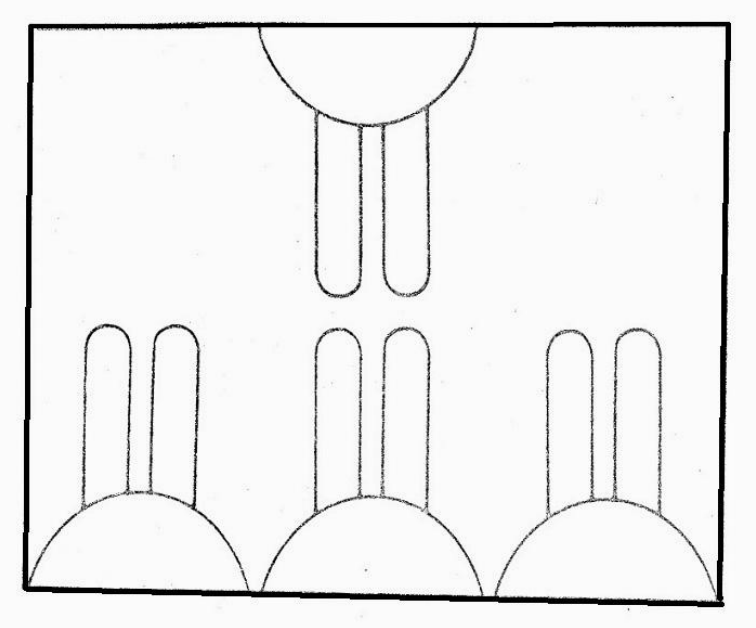
Droodle for Angles in a Circle – View from the Top

Answer Key by David Pleacher

Can you name this droodle?



Here are four titles for this droodle:

Title 1:

S	K	I		S	C	H	O	O	L		F	O	R		S	N	O	W	M	E	N	
__	__	__		__	__	__	__	__	__		__	__	__		__	__	__	__	__	__	__	.
27	1	33		27	31	14	15	12	29		11	15	3		27	34	12	16	8	13	34	

Title 2:

R	A	B	B	I	T		S	C	R	I	M	M	A	G	E	
__	__	__	__	__	__		__	__	__	__	__	__	__	__	__	.
3	17	2	2	26	19		27	31	3	33	8	8	20	24	13	

Title 3:

H	A	M	B	U	R	G	E	R		P	O	P	S	I	C	L	E	S	
__	__	__	__	__	__	__	__	__		__	__	__	__	__	__	__	__	__	.
14	17	8	2	9	3	18	13	3		7	15	7	27	26	31	29	13	27	

Title 4:

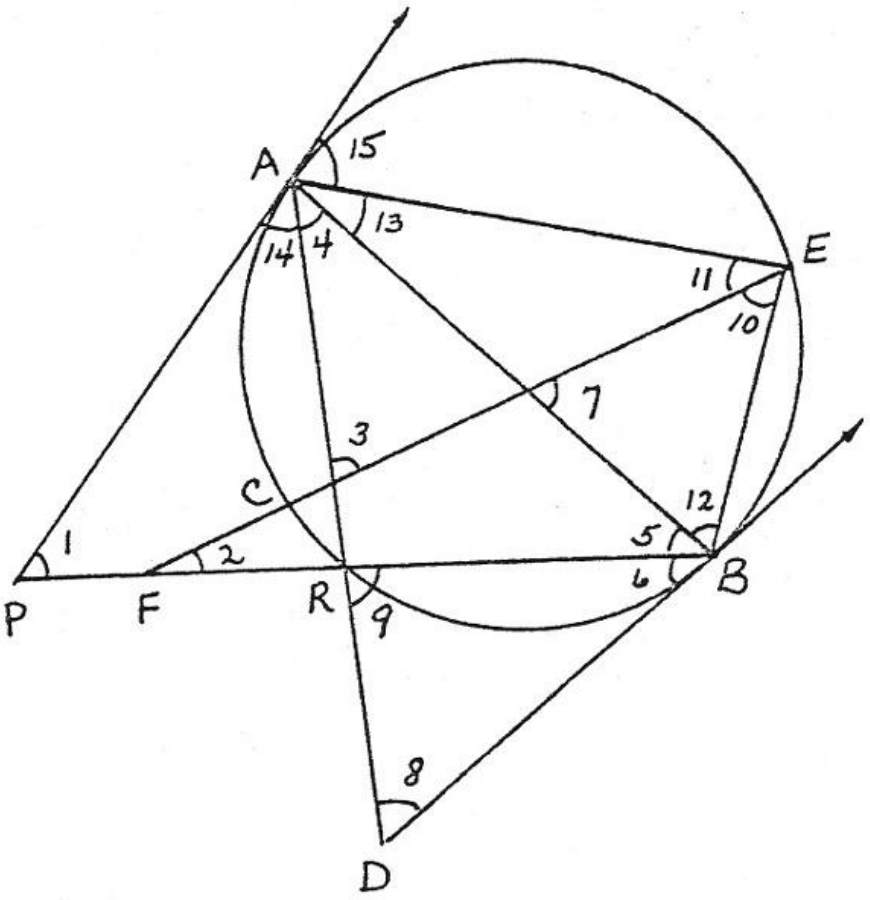
P	R	E	G	N	A	N	T		W	O	M	E	N		D	A	N	G	L	I	N	G
__	__	__	__	__	__	__	__		__	__	__	__	__		__	__	__	__	__	__	__	__
7	3	13	4	34	20	34	19		16	12	8	13	34		32	17	34	6	29	33	34	23

T	H	E	I	R		F	E	E	T		I	N		A		P	O	O	L	
__	__	__	__	__		__	__	__	__		__	__		__		__	__	__	__	.
19	5	13	33	3		11	13	13	19		26	34		20		7	15	12	29	

Here are the choices for your answers:

A. 10°	B. 22°	C. 22.5°
D. 30°	E. 31°	F. 35°
G. 40°	H. 44°	I. 45°
J. 49°	K. 52°	L. 52.5°
M. 56°	N. 60°	O. 65°
P. 66°	Q. 70°	R. 74°
S. 75°	T. 80°	U. 84°
V. 90°	W. 100°	X. 110°
Y. 127.5°	Z. 140°	

I. Given: $m(\text{arc } AE) = 130°$, $m(\text{arc } CR) = 18°$, $m(\text{arc } AC) = 70°$, $m(\text{arc } BR) = 80°$,
$\overrightarrow{PA}$ and $\overrightarrow{BD}$ are tangents.

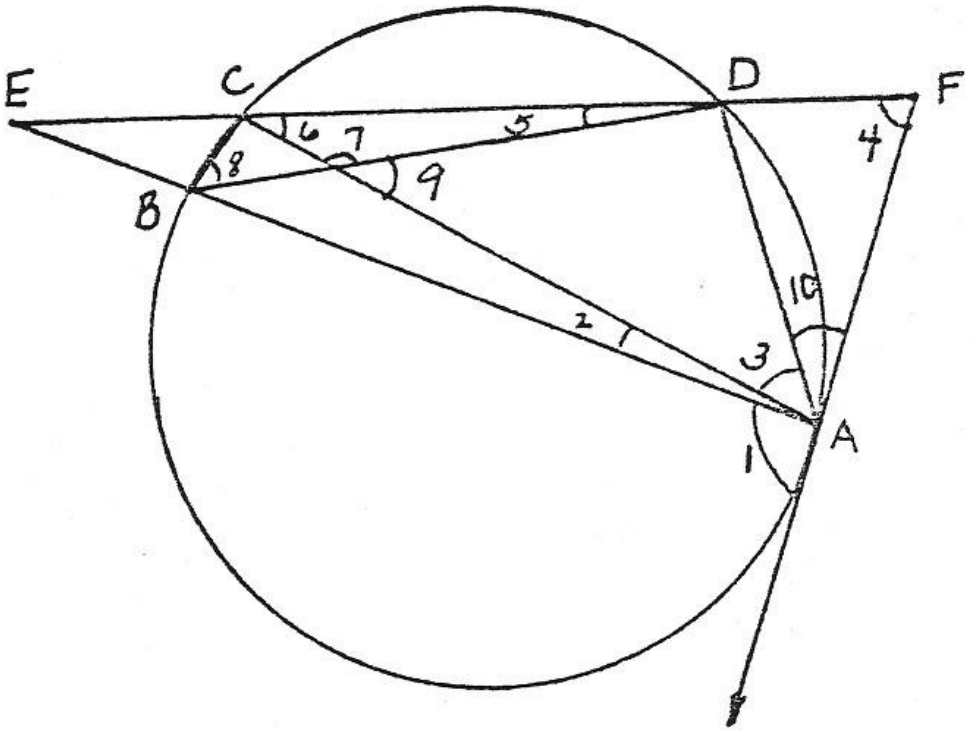


Determine the measures of the following angles:

K 1. $m\angle 1 =$ 52°
B 2. $m\angle 2 =$ 22°
R 3. $m\angle 3 =$ 74°
G 4. $m\angle 4 =$ 40°
H 5. $m\angle 5 =$ 44°
G 6. $m\angle 6 =$ 40°
P 7. $m\angle 7 =$ 66°
M 8. $m\angle 8 =$ 56°
U 9. $m\angle 9 =$ 84°
J 10. $m\angle 10 =$ 49°

F 11. $m\angle 11 =$ 35°
0 12. $m\angle 12 =$ 65°
E 13. $m\angle 13 =$ 31°
H 14. $m\angle 14 =$ 44°
O 15. $m\angle 15 =$ 65°

II. Given: $m\angle CEB = 20°$, $m\angle DBA = 30°$, $m\angle BDA = 100°$, $\overrightarrow{FA}$ is a tangent.



Determine the measures of the following angles:

W 16. $m\angle 1 =$ 100°

A 17. $m\angle 2 =$ 10°

G 18. $m\angle 3 =$ 40°

T 19. $m\angle 4 =$ 80°

A 20. $m\angle 5 =$ 10°

D 21. $m\angle 6 =$ 30°

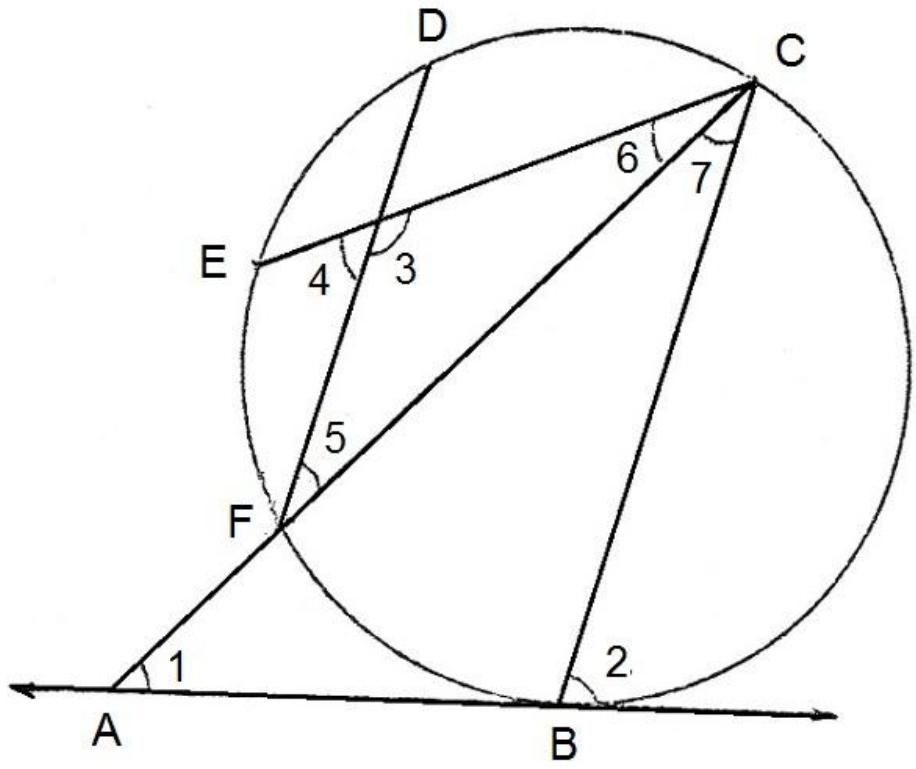
Z 22. $m\angle 7 =$ 140°

G 23. $m\angle 8 =$ 40°

G 24. $m\angle 9 =$ 40°

D 25. $m\angle 10 =$ 30°

III. Given: $\overleftrightarrow{AB}$ is a tangent, $\overline{FD} \parallel \overline{BC}$, $m(\text{arc } ED) = 45°$, $m(\text{arc } FB) = 60°$, $m(\text{arc } BC) = 150°$.



Determine the measures of the following:

I 26. $m\angle 1 =$ 45°

S 27. $m\angle 2 =$ 75°

Y 28. $m\angle 3 =$ 127.5°

L 29. $m\angle 4 =$ 52.5°

D 30. $m\angle 5 =$ 30°

C 31. $m\angle 6 =$ 22.5°

D 32. $m\angle 7 =$ 30°

I 33. $m(\text{arc } EF) =$ 45°

N 34. $m(\text{arc } DC) =$ 60°