

RADIUS R	T A N G E N T L E N G T H (T)										RAD F
	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	
192'	3 $\frac{3}{4}$ "	1'-0 $\frac{1}{2}$ "	2'-4 $\frac{1}{2}$ "	4'-2 $\frac{1}{2}$ "	6'-7 $\frac{1}{2}$ "	9'-7 $\frac{1}{2}$ "	13'-2 $\frac{3}{4}$ "	17'-5 $\frac{1}{2}$ "	22'-4 $\frac{3}{4}$ "	28'-1 $\frac{1}{4}$ "	19
194'	3 $\frac{3}{4}$ "	1'-0 $\frac{1}{2}$ "	2'-4"	4'-2"	6'-6 $\frac{1}{2}$ "	9'-6 $\frac{1}{4}$ "	13'-1"	17'-3"	22'-1 $\frac{3}{4}$ "	27'-9 $\frac{1}{4}$ "	19
196'	3"	1'-0 $\frac{1}{4}$ "	2'-3 $\frac{3}{4}$ "	4'-1 $\frac{1}{2}$ "	6'-5 $\frac{3}{4}$ "	9'-5"	12'-11 $\frac{1}{4}$ "	17'-0 $\frac{3}{4}$ "	21'-10 $\frac{1}{2}$ "	27'-5 $\frac{1}{4}$ "	19
198'	3"	1'-0 $\frac{1}{4}$ "	2'-3 $\frac{1}{2}$ "	4'-1"	6'-5"	9'-3 $\frac{3}{4}$ "	12'-9 $\frac{1}{2}$ "	16'-10 $\frac{1}{2}$ "	21'-7 $\frac{1}{2}$ "	27'-1 $\frac{1}{4}$ "	19
200'	3"	1'-0"	2'-3 $\frac{1}{4}$ "	4'-0 $\frac{1}{2}$ "	6'-4 $\frac{1}{4}$ "	9'-2 $\frac{1}{2}$ "	12'-7 $\frac{3}{4}$ "	16'-8"	21'-4 $\frac{3}{4}$ "	26'-9 $\frac{1}{2}$ "	20
202'	3"	1'-0"	2'-3"	4'-0"	6'-3 $\frac{1}{2}$ "	9'-1 $\frac{1}{2}$ "	12'-6 $\frac{1}{4}$ "	16'-6 $\frac{1}{4}$ "	21'-2"	26'-6"	20
204'	3"	11 $\frac{3}{4}$ "	2'-2 $\frac{3}{4}$ "	3'-11 $\frac{1}{2}$ "	6'-2 $\frac{3}{4}$ "	9'-0 $\frac{1}{4}$ "	12'-4 $\frac{3}{4}$ "	16'-4"	20'-11 $\frac{1}{4}$ "	26'-2 $\frac{1}{4}$ "	20
206'	3"	11 $\frac{3}{4}$ "	2'-2 $\frac{1}{4}$ "	3'-11"	6'-2"	8'-11 $\frac{1}{4}$ "	12'-3"	16'-2"	20'-8 $\frac{1}{2}$ "	25'-10 $\frac{1}{4}$ "	20
208'	3"	11 $\frac{1}{2}$ "	2'-2"	3'-10 $\frac{1}{2}$ "	6'-1 $\frac{1}{4}$ "	8'-10"	12'-1 $\frac{1}{2}$ "	16'-0"	20'-5 $\frac{3}{4}$ "	25'-7 $\frac{1}{2}$ "	20
210'	3"	11 $\frac{1}{2}$ "	2'-1 $\frac{3}{4}$ "	3'-10 $\frac{1}{4}$ "	6'-0 $\frac{1}{2}$ "	8'-9"	12'-0"	15'-10"	20'-3 $\frac{1}{4}$ "	25'-4"	21
212'	3"	11 $\frac{1}{2}$ "	2'-1 $\frac{3}{4}$ "	3'-9 $\frac{3}{4}$ "	5'-11 $\frac{3}{4}$ "	8'-8"	11'-10 $\frac{1}{2}$ "	15'-8"	20'-0 $\frac{1}{2}$ "	25'-1"	21
214'	2 $\frac{3}{4}$ "	11 $\frac{1}{4}$ "	2'-1 $\frac{1}{2}$ "	3'-9 $\frac{1}{4}$ "	5'-11"	8'-7"	11'-9 $\frac{1}{4}$ "	15'-6 $\frac{1}{4}$ "	19'-10"	24'-9 $\frac{1}{2}$ "	21
216'	2 $\frac{3}{4}$ "	11 $\frac{1}{4}$ "	2'-1 $\frac{1}{4}$ "	3'-8 $\frac{3}{4}$ "	5'-10 $\frac{1}{2}$ "	8'-6"	11'-8"	15'-4 $\frac{1}{4}$ "	19'-7 $\frac{1}{2}$ "	24'-6 $\frac{1}{2}$ "	21
218'	2 $\frac{3}{4}$ "	11"	2'-1"	3'-8 $\frac{1}{2}$ "	5'-9 $\frac{3}{4}$ "	8'-5"	11'-6 $\frac{1}{2}$ "	15'-2 $\frac{1}{2}$ "	19'-5 $\frac{1}{4}$ "	24'-3 $\frac{1}{2}$ "	21
220'	2 $\frac{3}{4}$ "	11"	2'-0 $\frac{3}{4}$ "	3'-8"	5'-9"	8'-4"	11'-5 $\frac{1}{4}$ "	15'-0 $\frac{3}{4}$ "	19'-3"	24'-0 $\frac{1}{2}$ "	22
222'	2 $\frac{3}{4}$ "	10 $\frac{3}{4}$ "	2'-0 $\frac{1}{2}$ "	3'-7 $\frac{1}{2}$ "	5'-8 $\frac{1}{2}$ "	8'-3"	11'-4"	14'-11"	19'-0 $\frac{3}{4}$ "	23'-9 $\frac{1}{2}$ "	22
224'	2 $\frac{3}{4}$ "	10 $\frac{3}{4}$ "	2'-0 $\frac{1}{4}$ "	3'-7 $\frac{1}{4}$ "	5'-7 $\frac{3}{4}$ "	8'-2 $\frac{1}{4}$ "	11'-2 $\frac{3}{4}$ "	14'-9 $\frac{1}{4}$ "	18'-10 $\frac{1}{2}$ "	23'-6 $\frac{3}{4}$ "	22
226'	2 $\frac{3}{4}$ "	10 $\frac{3}{4}$ "	2'-0"	3'-6 $\frac{3}{4}$ "	5'-7 $\frac{1}{4}$ "	8'-1 $\frac{1}{4}$ "	11'-1 $\frac{1}{4}$ "	14'-7 $\frac{1}{4}$ "	18'-8 $\frac{1}{4}$ "	23'-4"	22
228'	2 $\frac{3}{4}$ "	10 $\frac{1}{2}$ "	1'-11 $\frac{3}{4}$ "	3'-6 $\frac{1}{2}$ "	5'-6 $\frac{1}{2}$ "	8'-0 $\frac{1}{2}$ "	11'-0"	14'-6"	18'-6 $\frac{1}{4}$ "	23'-1 $\frac{1}{4}$ "	22
230'	2 $\frac{3}{4}$ "	10 $\frac{1}{2}$ "	1'-11 $\frac{1}{2}$ "	3'-6"	5'-6"	7'-11 $\frac{1}{2}$ "	10'-11"	14'-4 $\frac{1}{4}$ "	18'-4"	22'-10 $\frac{1}{2}$ "	23
232'	2 $\frac{3}{4}$ "	10 $\frac{1}{2}$ "	1'-11 $\frac{1}{4}$ "	3'-5 $\frac{3}{4}$ "	5'-5 $\frac{1}{2}$ "	7'-10 $\frac{3}{4}$ "	10'-9 $\frac{3}{4}$ "	14'-2 $\frac{3}{4}$ "	18'-2"	22'-8"	23
234'	2 $\frac{3}{4}$ "	10 $\frac{1}{4}$ "	1'-11 $\frac{1}{4}$ "	3'-5 $\frac{1}{4}$ "	5'-5"	7'-9 $\frac{3}{4}$ "	10'-8 $\frac{3}{4}$ "	14'-1 $\frac{1}{4}$ "	18'-0"	22'-5 $\frac{1}{4}$ "	23
236'	2 $\frac{1}{2}$ "	10 $\frac{1}{4}$ "	1'-11"	3'-5"	5'-4 $\frac{1}{4}$ "	7'-9"	10'-7 $\frac{1}{2}$ "	13'-11 $\frac{3}{4}$ "	17'-10"	22'-2 $\frac{3}{4}$ "	23
238'	2 $\frac{1}{2}$ "	10"	1'-10 $\frac{3}{4}$ "	3'-4 $\frac{1}{2}$ "	5'-3 $\frac{3}{4}$ "	7'-8 $\frac{1}{4}$ "	10'-6 $\frac{1}{4}$ "	13'-10 $\frac{1}{4}$ "	17'-8"	22'-0 $\frac{1}{4}$ "	23
240'	2 $\frac{1}{2}$ "	10"	1'-10 $\frac{1}{2}$ "	3'-4 $\frac{1}{4}$ "	5'-3 $\frac{1}{4}$ "	7'-7 $\frac{1}{2}$ "	10'-5 $\frac{1}{4}$ "	13'-8 $\frac{3}{4}$ "	17'-6"	21'-10"	24
242'	2 $\frac{1}{2}$ "	10"	1'-10 $\frac{1}{2}$ "	3'-4"	5'-2 $\frac{3}{4}$ "	7'-6 $\frac{3}{4}$ "	10'-4"	13'-7 $\frac{1}{4}$ "	17'-4 $\frac{1}{4}$ "	21'-7 $\frac{1}{2}$ "	24
244'	2 $\frac{1}{2}$ "	9 $\frac{3}{4}$ "	1'-10 $\frac{1}{4}$ "	3'-3 $\frac{1}{2}$ "	5'-2 $\frac{1}{4}$ "	7'-6"	10'-3 $\frac{1}{4}$ "	13'-6"	17'-2 $\frac{1}{2}$ "	21'-5 $\frac{1}{4}$ "	24
246'	2 $\frac{1}{2}$ "	9 $\frac{3}{4}$ "	1'-10"	3'-3 $\frac{1}{4}$ "	5'-1 $\frac{1}{2}$ "	7'-5 $\frac{1}{4}$ "	10'-2"	13'-4 $\frac{1}{2}$ "	17'-0 $\frac{3}{4}$ "	21'-3"	24
248'	2 $\frac{1}{2}$ "	9 $\frac{3}{4}$ "	1'-9 $\frac{3}{4}$ "	3'-3"	5'-1"	7'-4 $\frac{1}{2}$ "	10'-1"	13'-3"	16'-11"	21'-0 $\frac{3}{4}$ "	24
250'	2 $\frac{1}{2}$ "	9 $\frac{1}{2}$ "	1'-9 $\frac{1}{4}$ "	3'-2 $\frac{3}{4}$ "	5'-0 $\frac{1}{2}$ "	7'-3 $\frac{3}{4}$ "	10'-0"	13'-1 $\frac{3}{4}$ "	16'-9"	20'-10 $\frac{1}{2}$ "	24
255'	2 $\frac{1}{2}$ "	9 $\frac{1}{2}$ "	1'-9 $\frac{1}{4}$ "	3'-2"	4'-11 $\frac{1}{2}$ "	7'-2"	9'-9 $\frac{1}{2}$ "	12'-10 $\frac{1}{2}$ "	16'-5"	20'-5"	24
260'	2 $\frac{1}{4}$ "	9 $\frac{1}{4}$ "	1'-9"	3'-1 $\frac{1}{4}$ "	4'-10 $\frac{1}{4}$ "	7'-0 $\frac{1}{4}$ "	9'-7 $\frac{1}{4}$ "	12'-7 $\frac{1}{2}$ "	16'-1"	20'-0"	24
265'	2 $\frac{1}{4}$ "	9"	1'-8 $\frac{1}{2}$ "	3'-0 $\frac{1}{2}$ "	4'-9"	6'-10 $\frac{1}{2}$ "	9'-5"	12'-4 $\frac{1}{2}$ "	15'-9"	19'-7 $\frac{1}{4}$ "	24
270'	2 $\frac{1}{4}$ "	9"	1'-8"	2'-11 $\frac{3}{4}$ "	4'-8"	6'-9"	9'-2 $\frac{3}{4}$ "	12'-1 $\frac{1}{2}$ "	15'-5 $\frac{1}{4}$ "	19'-2 $\frac{1}{2}$ "	24
275'	2 $\frac{1}{4}$ "	8 $\frac{3}{4}$ "	1'-7 $\frac{3}{4}$ "	2'-11"	4'-7"	6'-7 $\frac{1}{2}$ "	9'-0 $\frac{3}{4}$ "	11'-10 $\frac{3}{4}$ "	15'-1 $\frac{3}{4}$ "	18'-10"	24
280'	2 $\frac{1}{4}$ "	8 $\frac{3}{4}$ "	1'-7 $\frac{1}{4}$ "	2'-10 $\frac{1}{2}$ "	4'-6"	6'-6"	8'-10 $\frac{3}{4}$ "	11'-8"	14'-10 $\frac{1}{4}$ "	18'-5 $\frac{3}{4}$ "	24
285'	2 $\frac{1}{4}$ "	8 $\frac{1}{2}$ "	1'-7"	2'-9 $\frac{3}{4}$ "	4'-5"	6'-4 $\frac{3}{4}$ "	8'-8 $\frac{3}{4}$ "	11'-5 $\frac{1}{2}$ "	14'-7"	18'-1 $\frac{1}{2}$ "	24
290'	2"	8 $\frac{1}{4}$ "	1'-6 $\frac{3}{4}$ "	2'-9 $\frac{1}{4}$ "	4'-4"	6'-3 $\frac{1}{4}$ "	8'-7"	11'-3"	14'-3 $\frac{3}{4}$ "	17'-9 $\frac{1}{2}$ "	24
295'	2"	8 $\frac{1}{4}$ "	1'-6 $\frac{1}{4}$ "	2'-8 $\frac{3}{4}$ "	4'-3 $\frac{1}{4}$ "	6'-2"	8'-5 $\frac{1}{4}$ "	11'-0 $\frac{3}{4}$ "	14'-0 $\frac{3}{4}$ "	17'-5 $\frac{3}{4}$ "	24
300'	2"	8"	1'-6"	2'-8 $\frac{1}{4}$ "	4'-2 $\frac{1}{2}$ "	6'-0 $\frac{3}{4}$ "	8'-3 $\frac{1}{2}$ "	10'-10 $\frac{1}{4}$ "	13'-9 $\frac{3}{4}$ "	17'-2"	30