

# Circles: Angles and Segments

Name ANSWERS

Solve each problem and find its matching answer in the Answer Box. Decode the quotation using the letter of the answer associated with each question. (Diagrams not necessarily to scale.)

“ **U** **N** **T** **I** **L** **H** **E** **E** **X** **T** **E** **N** **D** **S** **H** **I** **S**  
 18 2 19 17 13 9 16 16 3 19 16 2 12 5 9 17 5

**C** **I** **R** **C** **L** **E** **O** **F** **C** **O** **M** **P** **A** **S** **S** **I** **O** **N**  
 20 17 10 20 13 16 6 1 20 6 14 11 7 5 5 17 6 2

**T** **O** **I** **N** **C** **L** **U** **D** **E** **A** **L** **L**  
 19 6 17 2 20 13 18 12 16 7 13 13

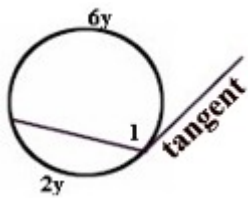
**L** **I** **V** **I** **N** **G** **T** **H** **I** **N** **G** **S**, **M** **A** **N**  
 13 17 4 17 2 8 19 9 17 2 8 5 14 7 2

**W** **I** **L** **L** **N** **O** **T** **H** **I** **M** **S** **E** **L** **F**  
 15 17 13 13 2 6 19 9 17 14 5 16 13 1

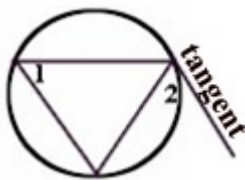
**F** **I** **N** **D** **P** **E** **A** **C** **E**.” Albert Schweitzer  
 1 17 2 12 11 16 7 20 16

<p>1. Find <math>x</math>. <b>58</b> 296</p>	<p>2. Find <math>x</math>. <b>120</b> 160</p>	<p>3. <b>6</b></p> <p><math>m\angle 1 = 9x + 1</math>  <math>m\angle 2 = 5x + 5</math>                  Find <math>x</math></p>	<p>4. Find <math>x</math>. <b>7</b></p>
<p>5. Find <math>x</math>. <b>2</b></p>	<p>6. <math>m\angle 1 = 38^\circ</math> Find <math>m\angle 2</math> <b>38</b></p>	<p>7. <b>17</b></p> <p><math>m\angle 1 = 3x + 14</math>                  Find <math>x</math>.</p>	<p>8. Find <math>x</math>. <b>25</b></p>

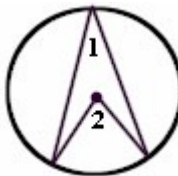
9. Find  $m < 1$  135



10.  $m < 1 = 26$   
Find  $m < 2$ . 26



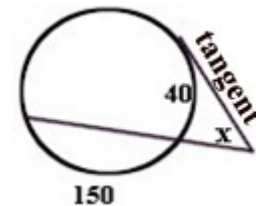
11. 50



$m < 1 = 25^\circ$

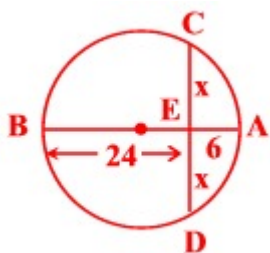
Find  $m < 2$

12. Find  $x$ . 65



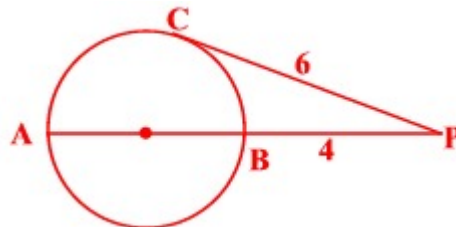
13. In circle O, diameter  $\overline{AB}$  is perpendicular to chord  $\overline{CD}$  at E. If  $CD = 20$ ,  $AE = 2$  and  $EB = 4x - 2$ , find the length of the diameter.

52

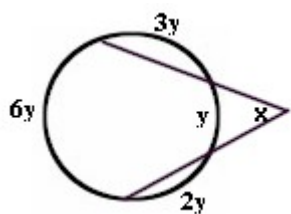


14. In a circle, diameter  $\overline{AB}$  is extended through B to an external point P. Tangent  $\overline{PC}$  is drawn to point C on the circle. If the radius of the circle is 15, and  $BP = 2$ , find the length of  $PC$ .

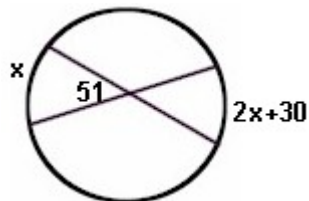
8



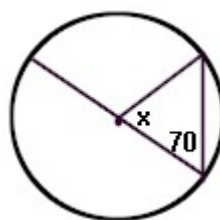
15. Find  $x$ . 75



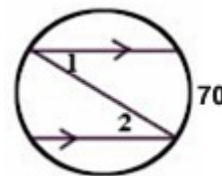
16. Find  $x$ . 24



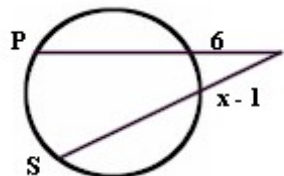
17. Find  $x$ . 40



18. Find  $m < 2$  35



19. 5

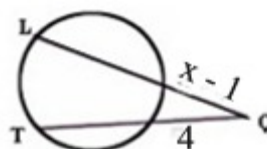


$PT = x + 5$

$ST = 15$

Find  $x$ .

20. 4



$LQ = x + 12$

$TQ = x + 8$

Find  $x$ .

### Answer Box

A 17	C 4	D 65	E 24	F 58	G 25
H 135	I 40	J 3	K 22	L 52	M 8
N 120	O 38	P 50	Q 18	R 26	S 2
T 5	U 35	V 7	W 75	X 6	Y 45