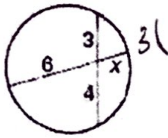


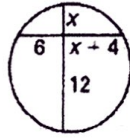
Honors Math 3
Segment Lengths in Circles HW

Name McG Key

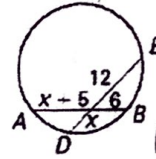
Directions: Find the indicated measure. SHOW WORK.



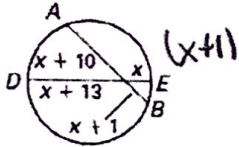
1. $x = 2$
Equation: $3(4) = 6x$
 $12 = 6x$



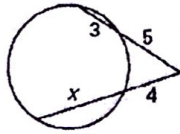
2. $x = 4$
Equation: $6(x+4) = 12x$
 $x+4 = 2x$
 $4 = x$



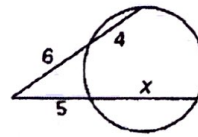
3. $AB = 16$
Equation: $6(x+5) = 12x$
 $x+5 = 2x$
 $5 = x$



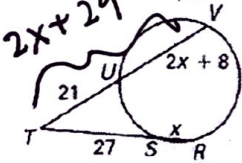
4. $DE = 23$ $5+18$
Equation: $(x+1)(x+10) = (x+11)x$
 $x^2 + 11x + 10 = x^2 + 11x$
 $10 = 2x$
 $5 = x$



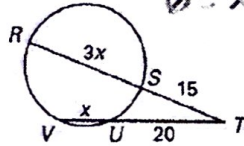
5. $x = 6$
Equation: $5(8) = 4(x+4)$
 $40 = 4x + 16$
 $24 = 4x$
 $6 = x$



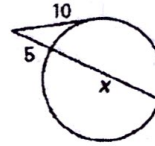
6. $x = 7$
Equation: $6(10) = 5(x+5)$
 $60 = 5x + 25$
 $35 = 5x$
 $7 = x$



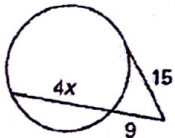
7. $RT = 35$
Equation: $21(2x+8) = 27(x+27)$
 $42x + 168 = 27x + 729$
 $15x = 561$
 $x = 37.4$



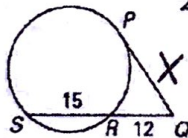
8. $TV = 27$
Equation: $15(15+3x) = 20(x+20)$
 $225 + 45x = 20x + 400$
 $25x = 175$
 $x = 7$



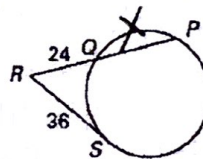
9. $x = 15$
Equation: $10^2 = 5(x+5)$
 $100 = 5x + 25$
 $75 = 5x$
 $x = 15$



10. $x = 4$
Equation: $15^2 = 9(4x+9)$

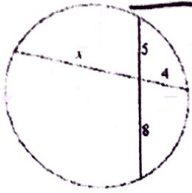


11. $PQ = 18$
Equation: $x^2 = 12(27)$
 $x^2 = 324$
 $x = 18$



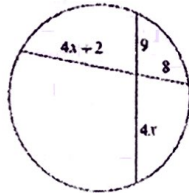
12. $PQ = 54$
Equation: $36^2 = 24(24+x)$
 $1296 = 576 + 24x$
 $x = 30$

P.24



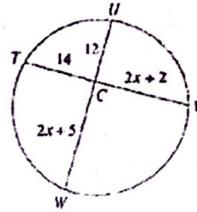
13. $x = 10$

Equation: $x \cdot 4 = 5 \cdot 8$
 $4x = 40$



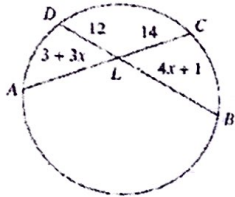
14. $x = 4$

Equation: $8(4x+2) = 9(4x)$
 $32x + 16 = 36x$
 $-32x \quad -32x$
 $16 = 4x$



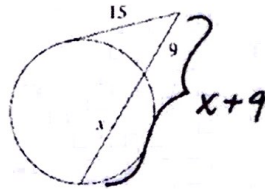
15. $x = 8$

Equation: $14(2x+2) = 12(2x+5)$
 $28x + 28 = 24x + 60$
 $-24x - 28 \quad -24x - 28$
 $4x = 32$



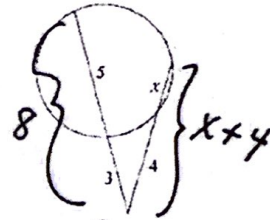
16. $x = 5$

Equation: $12(4x+1) = 14(3+3x)$
 $48x + 12 = 42 + 42x$
 $(x-3+4) \quad 6x = 30$



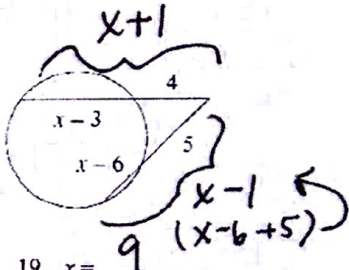
17. $x = 16$

Equation: $15 \cdot 15 = 9(x+9)$
 $225 = 9x + 81$
 $144 = 9x$



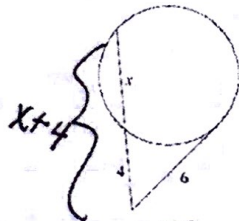
18. $x = 2$

Equation: $3(8) = 4(x+4)$
 $24 = 4x + 16$
 $-16 \quad -16$
 $8 = 4x$



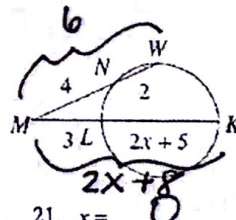
19. $x = 9$

Equation: $4(x+1) = 5(x-1)$
 $4x + 4 = 5x - 5$
 $+5 \quad +5$
 $9 = x$



20. $x = 5$

Equation: $6 \cdot 6 = 4(x+4)$
 $36 = 4x + 16$
 $-16 \quad -16$
 $20 = 4x$
 $5 = x$



21. $x = 0$

Equation: $4(6) = 3(2x+8)$
 $24 = 6x + 24$
 $-24 \quad -24$
 $0 = 6x$
 $0 = x$

P.25-26-omit #2