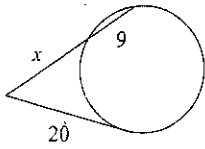


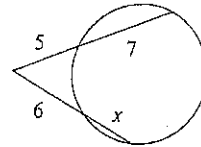
More Power Theorems (WKST 9.8)

Solve for  $x$ . Assume that lines which appear tangent are tangent.

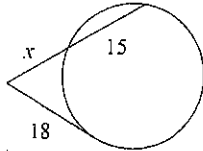
1)



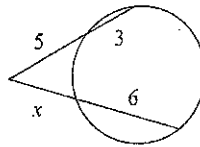
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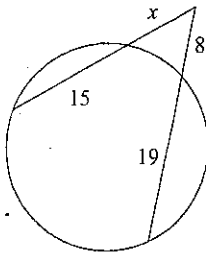
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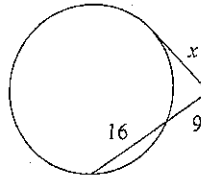
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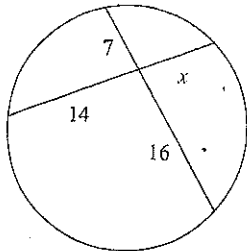
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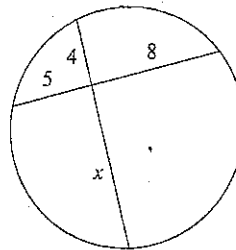
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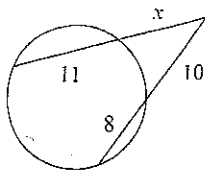
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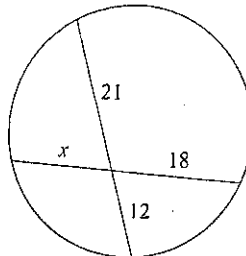
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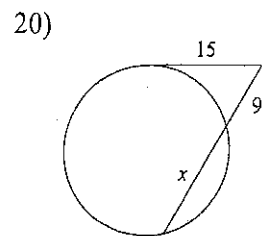
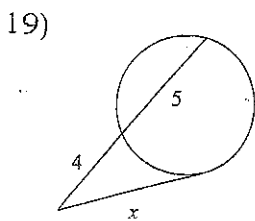
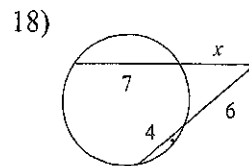
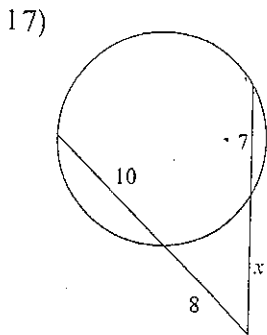
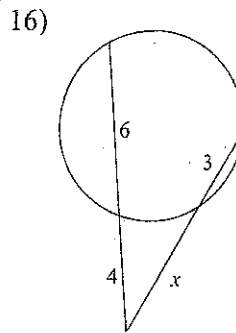
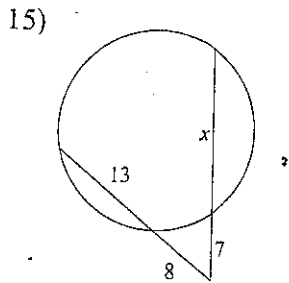
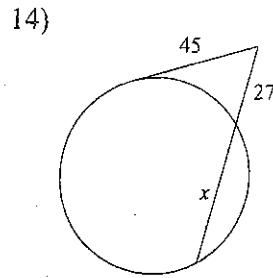
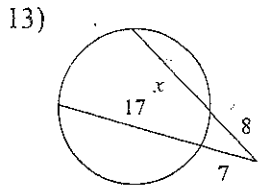
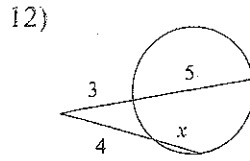
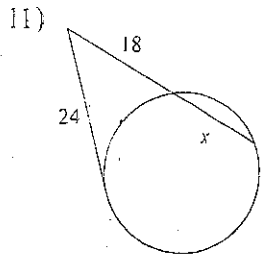


9)



10)





Answers to More Power Theorems (WKST 9.8) (ID: 1)

1) 16

5) 9

9) 9

13) 13

17) 9

2) 4

6) 15

10) 14

14) 48

18) 5

3) 12

7) 8

11) 14

15) 17

19) 6

4) 4

8) 10

12) 2

16) 5

20) 16

1.  $20^2 = x(x+9)$   
 $400 = x^2 + 9x$   
 $x^2 + 9x - 400 = 0$   
 $(x+25)(x-16) = 0$   
 $x = 16$

2.  $6(x+6) = 5(12)$   
 $6x + 36 = 60$   
 $6x = 24$   
 $x = 4$

3.  $18^2 = x(x+15)$   
 $324 = x^2 + 15x$   
 $x^2 + 15x - 324 = 0$   
 $(x+27)(x-12) = 0$   
 $x = 12$

4.  $x(x+6) = 5(8)$   
 $x^2 + 6x = 40$   
 $x^2 + 6x - 40 = 0$   
 $(x+10)(x-4) = 0$   
 $x = 4$

5.  $x(x+15) = 8(27)$   
 $x^2 + 15x = 216$   
 $x^2 + 15x - 216 = 0$   
 $(x+24)(x-9) = 0$   
 $x = 9$

6.  $x^2 = 9(25)$   
 $x^2 = 225$   
 $x = 15$

7.  $7(16) = 14x$   
 $x = 8$

8.  $4x = 40$   
 $x = 10$

9.  $x(x+11) = 10(18)$   
 $x^2 + 11x = 180$   
 $x^2 + 11x - 180 = 0$   
 $(x+20)(x-9) = 0$   
 $x = 9$

10.  $12(21) = 18x$   
 $x = 14$

11.  $24^2 = 18(x+18)$   
 $576 = 18x + 324$   
 $x = 14$

12.  $4(x+4) = 3(8)$   
 $4x + 16 = 24$   
 $x = 2$

$$13. 7(24) = 8(x+8)$$

$$168 = 8x + 64$$

$$104 = 8x$$

$$\boxed{x=13}$$

$$14. 45^2 = 27(x+27)$$

$$\boxed{x=48}$$

$$15. 8(21) = 7(x+7)$$

$$168 = 7x + 49$$

$$119 = 7x$$

$$\boxed{x=17}$$

$$16. x(x+3) = 4(10)$$

$$x^2 + 3x = 40$$

$$x^2 + 3x - 40 = 0$$

$$(x+8)(x-5) = 0$$

$$\boxed{x=5}$$

$$17. 8(18) = x(x+7)$$

$$144 = x^2 + 7x$$

$$x^2 + 7x - 144 = 0$$

$$(x+16)(x-9) = 0$$

$$\boxed{x=9}$$

$$18. x(x+7) = 6(10)$$

$$x^2 + 7x - 60 = 0$$

$$(x+12)(x-5) = 0$$

$$\boxed{x=5}$$

$$19. x^2 = 4(9)$$

$$x^2 = 36$$

$$\boxed{x=6}$$

$$20. 15^2 = 9(x+9)$$

$$225 = 9x + 81$$

$$\boxed{x=16}$$