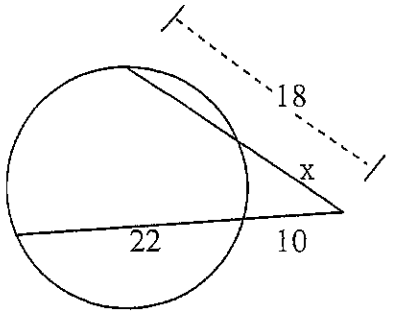
Practice 9-7

Find the value of the variable

1.)

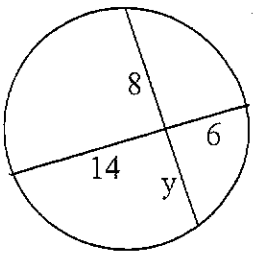


$18x = 32 \cdot 10$

$18x = 320$

$x \approx 17.8$

2.)

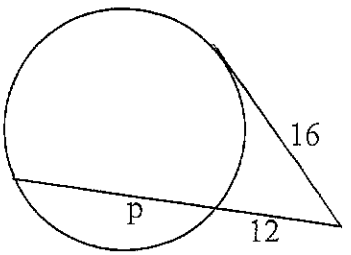


$8y = 14 \cdot 6$

$8y = 84$

$y = 10.5$

3.)



$12(p+12) = 16^2$

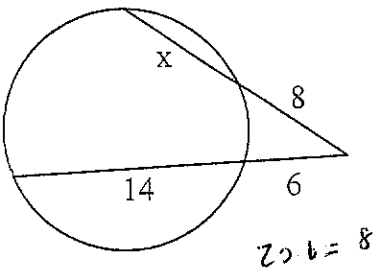
$12p + 144 = 256$

$-144 \quad -144$

$12p = 112$

$p \approx 9.3$

4.)



$20 \cdot 6 = 8(x+8)$

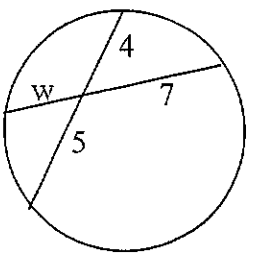
$120 = 8x + 64$

$-64 \quad -64$

$\frac{56}{8} = \frac{8x}{8}$

$x = 7$

5.)

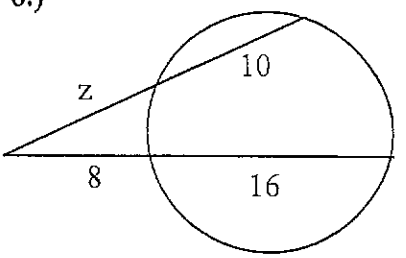


$7w = 4 \cdot 5$

$\frac{7w}{7} = \frac{20}{7}$

$w \approx 2.9$

6.)

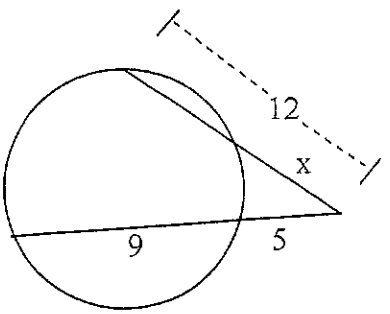


$z(z+10) = 8(24)$

$z^2 + 10z = 192$

$z^2 + 10z - 192 = 0$

7.)

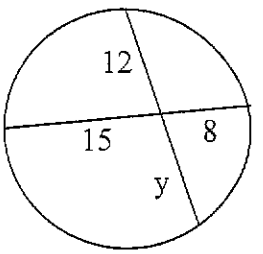


$12x = 14 \cdot 5$

$\frac{12x}{12} = \frac{70}{12}$

$x = 5.8$

8.)

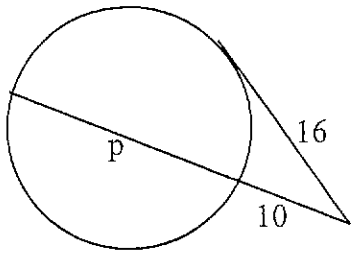


$12y = 15 \cdot 8$

$12y = 120$

$y = 10$

9.)



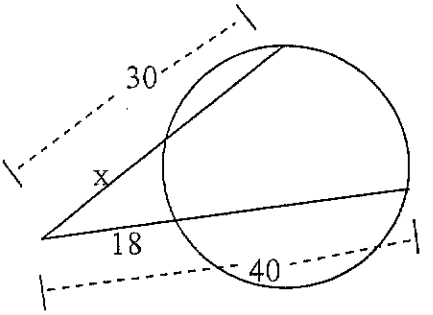
$10(p+10) = 16^2$

$10p + 100 = 256$

$10p = 156$

$p = 15.6$

10.)

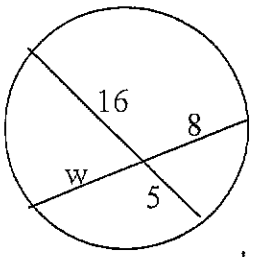


$30x = 40 \cdot 18$

$30x = 720$

$x = 24$

11.)

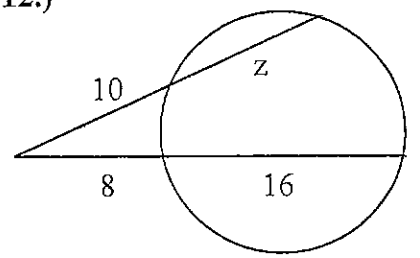


$16 \cdot 5 = 8w$

$80 = 8w$

$w = 11.25$

12.)



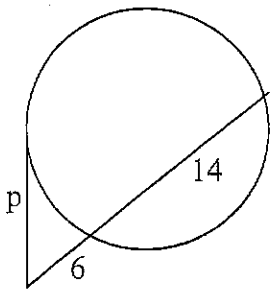
$10(10+z) = 8(24)$

$100 + 10z = 192$

$10z = 92$

$z = 9.2$

13.)



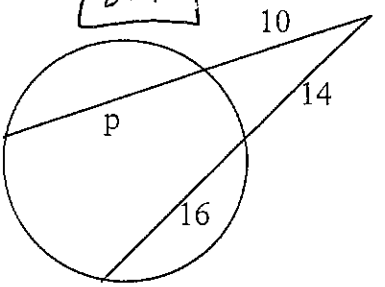
$p^2 = 6(20)$

$p^2 = 120$

$p = \sqrt{120}$

$p = 2\sqrt{30}$

14.)



$10(p+10) = 14(30)$

$10p + 100 = 420$

$10p = 320$

$p = 32$