4th Quarter

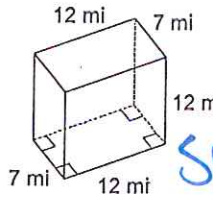
Name Key

Review SA = L + 2B

Date 5/2016 Period ____

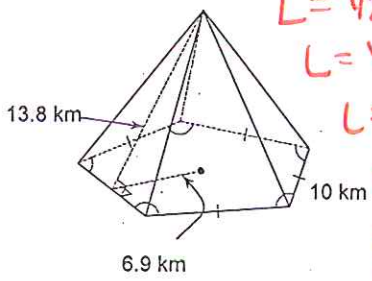
Find the surface area of each figure. Round your answers to the nearest thousandth, if necessary.

1)



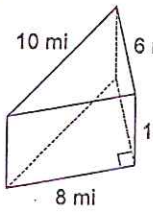
L = Ph
L = (38)(12)
L = 456
SA = 456 + 2(7·12)
456 + 168
SA = 624 mi²

2)



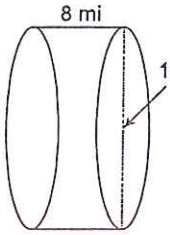
L = ½Ph
L = ½ (50)(13.8)
L = 345
SA = 345 + ½aP
345 + ½(4.9)50
345 + 172.5
SA = 517.5 km²

3)



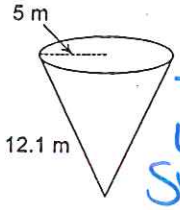
(8)(6)(10)11
(8+6+10)11
L = 264
264 + 2(½)(8·6)
264 + 48
SA = 312 mi²

4)



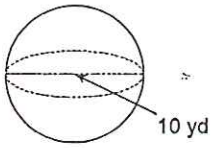
L = 2πrh
L = 2π(9)8
L = 144π
SA = L + 2πr²
144π + 2π92
144π + 162π
SA = 306π mi²

5)



L = πrl
π(5)(12.1)
L = 60.5π
SA = 60.5π + 25π
SA = 85.5π m²

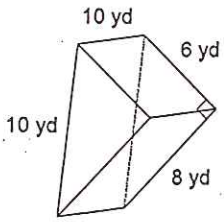
6)



4πr²
4π5²
4π25
100π yd²

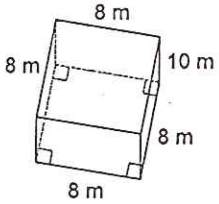
Find the volume of each figure. Round your answers to the nearest thousandth, if necessary.

7)



V = Bh
V = ½(6·8)10
½(48)(10)
24(10)
V = 240 yd³

8)

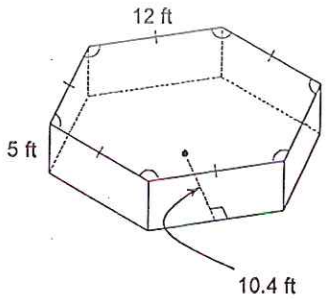


V = Bh
V = (8·8)10
64(10)
V = 640 m³

$V = Bh$

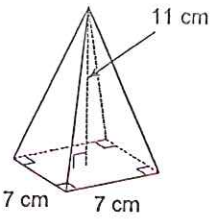
$\frac{1}{2}(10.4)(72)[5]$

9)



$V = 1872\ ft^3$

10)

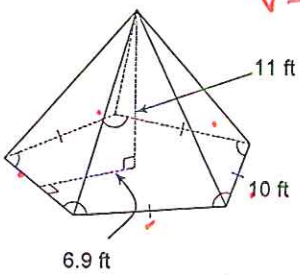


$V = 7 \cdot 7 \cdot 11$

$V = 539\ cm^3$

$V = 179.\overline{6}\ cm^3$

11)

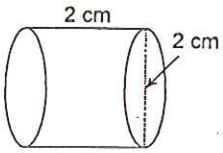


$V = \left(\frac{1}{2}(6.9)(30)(11)\right)\frac{1}{3}$

$\frac{1}{3}(1897.5)$

$V = 632.5\ ft^3$

12)

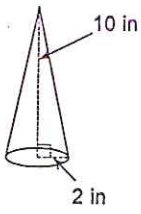


$\pi r^2 h$

$\pi(1)^2(2)$

$2\pi\ cm^3$

13)

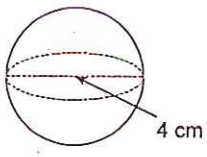


$\frac{1}{3}\pi r^2 h$

$\frac{1}{3}\pi \cdot 4 \cdot 10$

$V = 13.\overline{3}\pi\ in^3$

14)



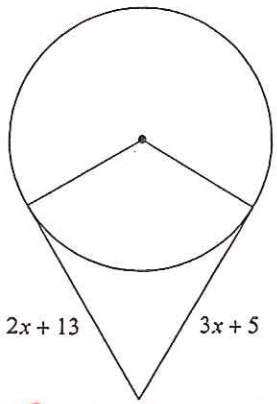
$\frac{4}{3}\pi r^3$

$\frac{4}{3}\pi 2^3$

$V = 10.\overline{6}\pi\ cm^3$

Solve for x. Assume that lines which appear to be tangent are tangent.

15)

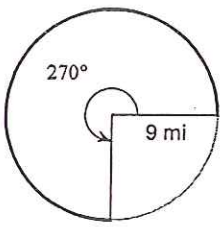


$2x + 13 = 3x + 5$

$8 = 1x$

Find the length of each arc.

16)



$2\pi r\left(\frac{m}{360}\right)$

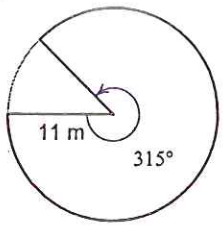
$2\pi\ 9\left(\frac{270}{360}\right)$

$13.5\pi\ mi$

m/360 πr²

Find the area of each sector.

17)

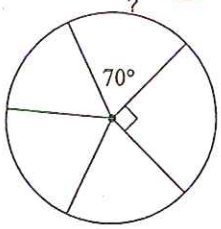


$\left(\frac{315}{360}\right)\pi 11^2$

$A = 105.875\pi\ m^2$

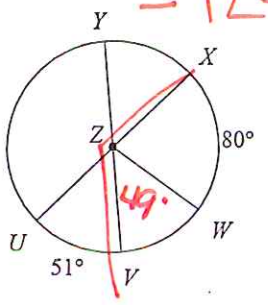
Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

18)



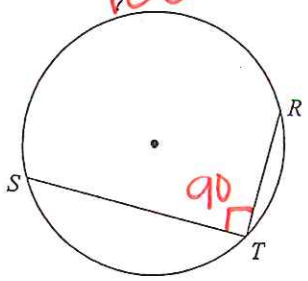
70°

19) $m\angle XZV$ = 129°



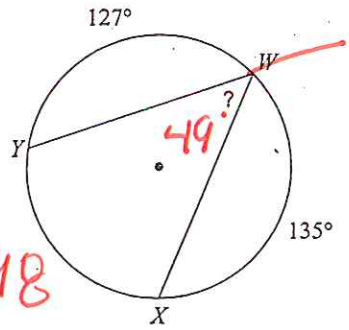
Find the measure of the arc or angle indicated.

20)



180°

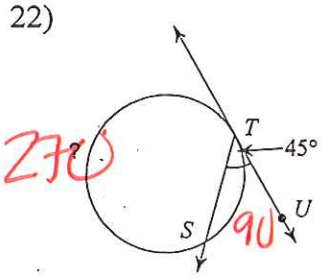
21)



1/2(98) = 49°

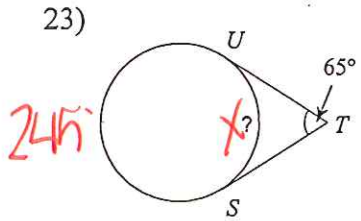
Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

22)



270°

23)



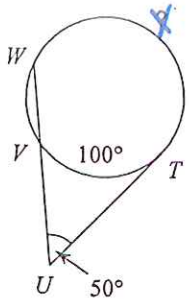
X = 115°

65 = 1/2(245 − x)

130 = 245 − x

$50 = 1/2(x - 100)$

24)

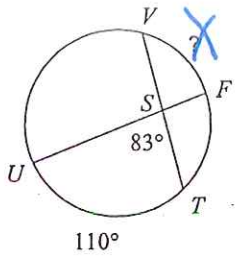


$100 = x - 100$

$+100 \quad +100$

$x = 200$

25)

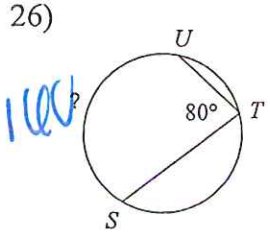


$83 = 1/2(x + 110)$

$166 = x + 110$

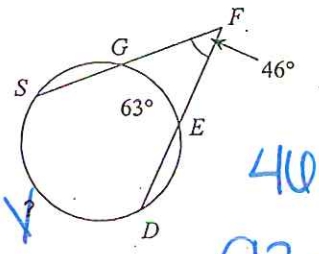
$x = 56$

26)



$80 \times 2 = 160$

27)



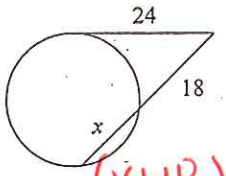
$46 = 1/2(x - 63)$

$92 = x - 63$

$x = 155$

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

28)

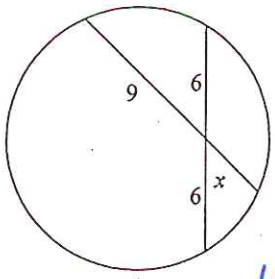


$(x + 18)18 = 24^2$

$18x + 324 = 576$

$18x = 252$ $\boxed{x = 14}$

29)

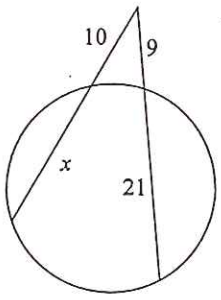


$6 \cdot 6 = x \cdot 9$

$36 = 9x$

$\boxed{x = 4}$

30)



$(30)\ 9$

$(x + 10)10 = (21 + 9)9$

$10x + 100 = 270$

$10x = 170$

$\boxed{x = 17}$