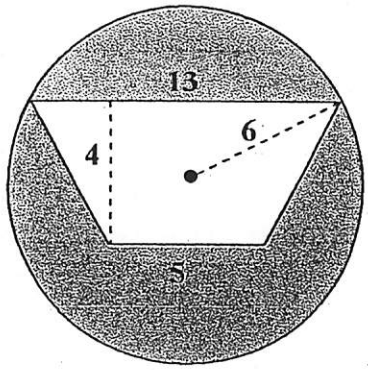
Geometry
Chapter 10

Name_____
Cumulative Quiz

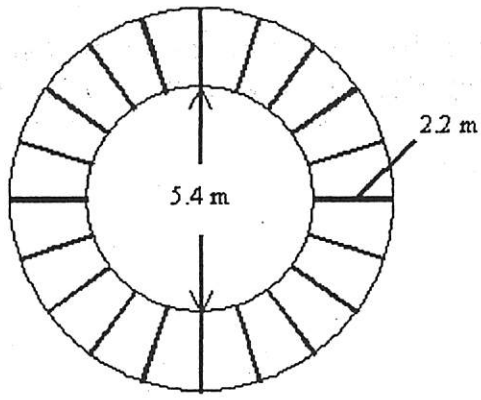
Directions: Be sure to show all work and all formulas you use in each problem.

[2] 1. Find the circumference of a circle, whose diameter is 13cm. Round your answer to the *nearest tenth.*

[4] 2. Find the area of the shaded region below to the *nearest tenth.*



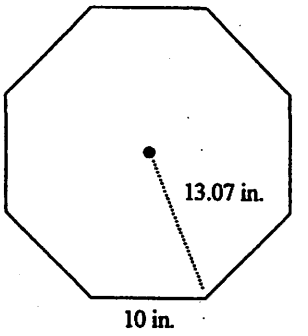
7. The figure represents the overhead view of a deck surrounding a hot tub. What is the area of the deck? Round to the nearest tenth.



[2] 4. Find the area of a pentagon with a side length of 21 and an apothem length of 15.5.

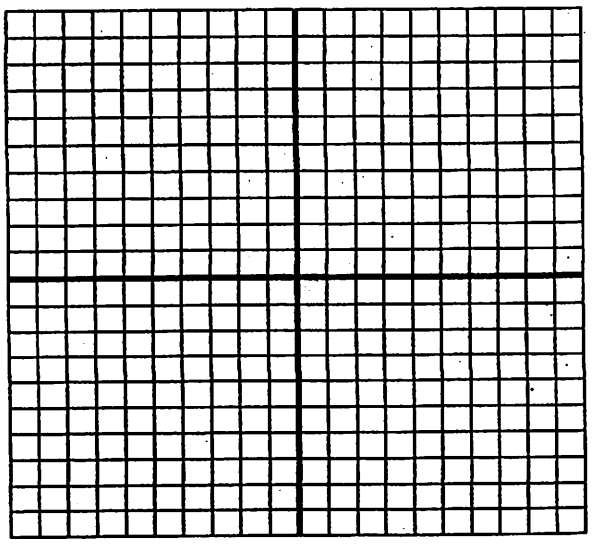
[2] 5. The circumference of a circle is 21π, find the length of the radius.

4. Find the area of the regular polygon. Round your answer to the nearest tenth.



[1] 7. a. Graph kite *CDEF* with vertices *C*(4, 1), *D*(8, 3), *E*(4, 10), and *F*(0, 3).

[2] b. Find the area of kite CDEF.



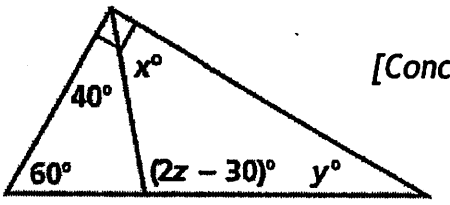
Name: _____

Geometry
Target Quiz 3B

1. Find the sum of the measures of the interior angles of a regular hexagon. *[Concept 7]*

2. Find the measure of an exterior angle of a regular septagon. *[Concept 7]*

3. Find the values of x, y, and z. *[Concept 5]*



Geometry
Chapter 10

Name Key
Cumulative Quiz

Directions: Be sure to show all work and all formulas you use in each problem.

[2] 1. Find the circumference of a circle, whose diameter is 13cm. Round your answer to the *nearest tenth.*

$C = \pi d$

$C = \pi \cdot 13$

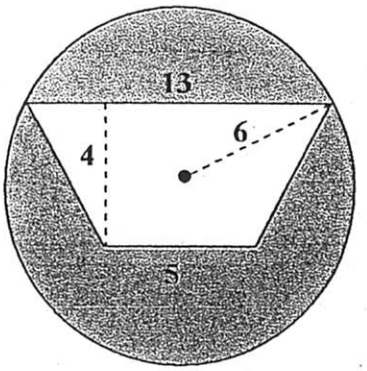
$C = 40.8\text{ cm}$

[4] 2. Find the area of the shaded region below to the *nearest tenth.*

Area $\odot$ − Area $\square$

Circle
Area $= \pi r^2$
$= \pi 6^2$
$= 113.1$

Trapezoid
$A = \frac{1}{2}h(b_1 + b_2)$
$= \frac{1}{2}(4)(5+13)$
$= 36$



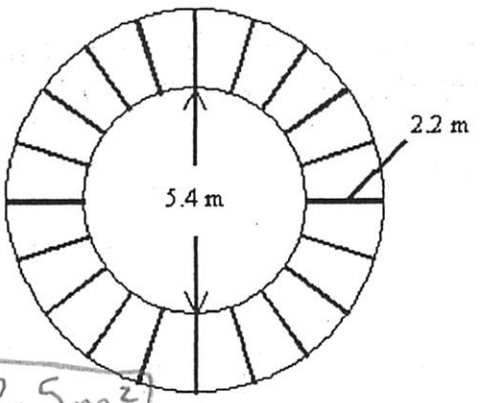
Shaded Area = 113.1 − 36 = 77.1

7. The figure represents the overhead view of a deck surrounding a hot tub. What is the area of the deck? Round to the nearest tenth.

small circle radius = 2.7 m
lg circle radius = 4.9 m

Area lg. $= \pi r^2$
$= \pi 4.9^2$
$= 75.4\text{ m}^2$

Area sm $= \pi r^2$
$= \pi 2.7^2$
$= 22.9\text{ m}^2$



Deck = $75.4\text{ m}^2 - 22.9\text{ m}^2 = 52.5\text{ m}^2$

[2] 4. Find the area of a pentagon with a side length of 21 and an apothem length of 15.5.

Pentagon Perimeter = 5 sides · 21
= 105

$A = \frac{1}{2}ap$

$A = \frac{1}{2}(15.5)(105) = 813.75$

[2] 5. The circumference of a circle is 21π, find the length of the radius.

$C = \pi d$

$\frac{21\pi}{\pi} = \frac{\pi d}{\pi}$ $\quad d = 21$ $\quad \boxed{r = 10.5}$

4. Find the area of the regular polygon. Round your answer to the nearest tenth.

$a^2 + b^2 = c^2$

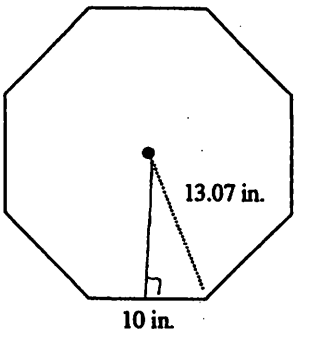
$5^2 + b^2 = 13.07^2$

$b^2 = 145.8249$

$b = 12.1$

Perimeter = 5 sides • 10 in

= 50 in

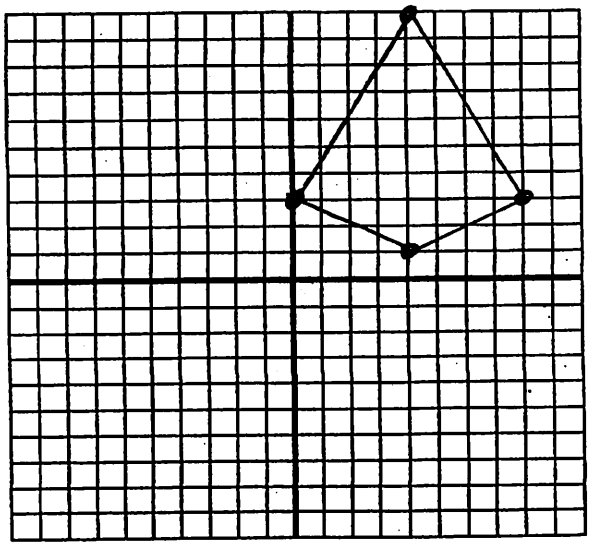


$A = \frac{1}{2}ap$

$A = \frac{1}{2}(12.1)(50)$

$\boxed{A = 301.9 \text{ in}^2}$

[1] 7. a. Graph kite $CDEF$ with vertices $C(4, 1)$, $D(8, 3)$, $E(4, 10)$, and $F(0, 3)$.



[2] b. Find the area of kite CDEF.

$A = \frac{1}{2}d_1d_2$

$d_1 = 9$

$d_2 = 8$

$A = \frac{1}{2}(9)(8)$

$\boxed{A = 36}$

Name: _____

Geometry
Target Quiz 3B

1. Find the sum of the measures of the interior angles of a regular hexagon. *[Concept 7]*

6 sides

Hexagon = 6 sides → 4 Triangles

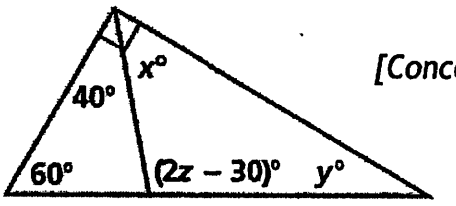
$4 \cdot 180^\circ = \boxed{720^\circ}$

2. Find the measure of an exterior angle of a regular septagon. *[Concept 7]*

7 sides

$\frac{360^\circ}{7} = \boxed{51.4^\circ}$

3. Find the values of x, y, and z. *[Concept 5]*



$X + 40^\circ = 90^\circ$

$\boxed{X = 50^\circ}$

$Y + 60^\circ + 90^\circ = 180^\circ$

$\boxed{Y = 30^\circ}$

$50^\circ + 30^\circ + 2z - 30 = 180$

$80^\circ + 2z - 30 = 180$

$2z + 50 = 180$

$2z = 130$

$\boxed{z = 65}$