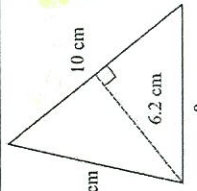
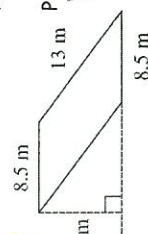
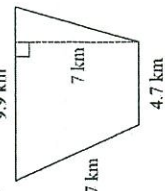
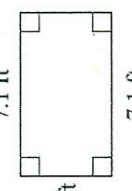


Name: Answer Key Date:         

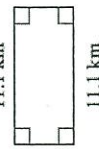
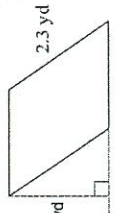
**Review - 2D Geometry**

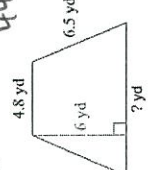
Solve each problem, following the given directions. Show your work. Round all answers to the nearest tenth when necessary.

Calculate the AREA and PERIMETER of the figures below.

<p>1. </p> <p><math>A = \frac{10 \cdot 6.2}{2} = 31 \text{ cm}^2</math>  <math>P = 8 + 6.2 + 10 = 26 \text{ cm}</math></p>	<p>2. </p> <p><math>A = 8.5 \cdot 7.8 = 66.3 \text{ m}^2</math>  <math>P = 8.5 + 7.8 + 13 = 43 \text{ m}</math></p>
<p>3. </p> <p><math>A = \frac{1}{2} \cdot 7 \cdot (9.9 + 7.7) = 51.1 \text{ km}^2</math></p>	<p>4. </p> <p><math>A = 7.1 \cdot 4 = 28.4 \text{ ft}^2</math>  <math>P = 4 + 7.1 + 4 + 7.1 = 22.2 \text{ ft}</math></p>

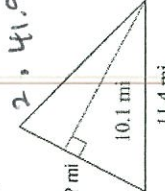
Find the missing measurement.

<p>5. </p> <p><math>54.4 = 11.1 \cdot x</math>  <math>x = 4.9 \text{ km}</math></p> <p>Area = 54.4 km<sup>2</sup></p>	<p>6. </p> <p><math>3.8 = \frac{2.3 \cdot x}{2}</math>  <math>x = 1.9 \text{ yd}</math></p> <p>Area = 3.8 yd<sup>2</sup></p>
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7. 

$44.4 = \frac{1}{2} \cdot 6 \cdot (4.8 + x)$   
 $44.4 = 3 \cdot (4.8 + x)$   
 $14.8 = 4.8 + x$   
 $x = 10$

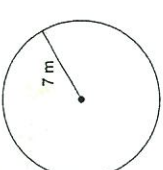
Area = 44.4 yd<sup>2</sup>

8. 

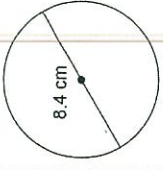
$41.9 = \frac{10.1 \cdot h}{2}$   
 $83.8 = 10.1 \cdot h$   
 $h = 8.3 \text{ mi}$

Area = 41.9 mi<sup>2</sup>

Calculate the CIRCUMFERENCE of the circles below.

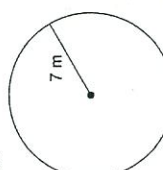
9. 

$C = \pi(14)$   
 $C = 43.96 \text{ m}$

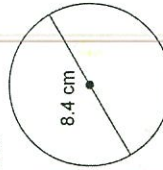
10. 

$C = \pi(8.4)$   
 $C = 26.376 \text{ cm}$

Calculate the AREA of the circles below.

11. 

$A = \pi(7)^2$   
 $A = 153.86 \text{ m}^2$

12. 

$A = \pi(4.2)^2$   
 $A = 55.4 \text{ cm}^2$

Solve each problem using your knowledge of 2D figures.

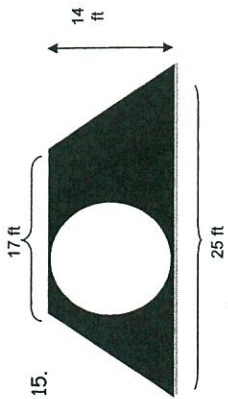
13. The circumference of a circle is 17.27m. What is the length of the diameter?

$17.27 = \frac{\pi d}{\pi}$   
 $5.5 \text{ m} = d$

14. Niko is fertilizing an area of land in the shape of a parallelogram with a base of 19 feet and a height of 12 feet. Each bag of fertilizer will cover 6 square feet of land. How many bags must Niko purchase to cover all of the land?

$A = 19 \cdot 12 = 228$   
 $\frac{228}{6} = 38 \text{ bags}$

Find the area of the shaded region below.



15.

$$A_{\text{trap}} = \frac{1}{2} \cdot 14 \cdot (17 + 25) = 294 \text{ ft}^2$$

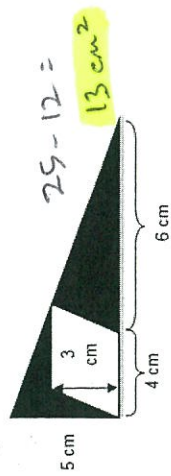
$$A_{\text{cir}} = \pi (7)^2 = 153.9 \text{ ft}^2$$

Find the area of the figures below.

$$294.0 - 153.9 = 140.1 \text{ ft}^2$$

$$A = \frac{10 \cdot 5}{2} = 25 \text{ cm}^2$$

$$A = 4 \cdot 3 = 12 \text{ cm}^2$$



16.

$$25 - 12 = 13 \text{ cm}^2$$

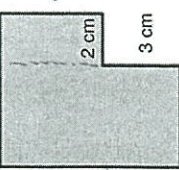
17.



$$A_{\text{tri}} = \frac{10 \cdot 3}{2} = 15 \text{ ft}^2$$

$$A_{\text{rec}} = 10 \cdot 12 = 120 \text{ ft}^2$$

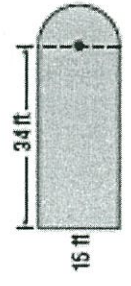
18.



$$A_{\text{rec}} = 7 \cdot 4 = 28 \text{ cm}^2 + 8$$

$$A_{\text{rec}} = 2 \cdot 4 = 8 \text{ cm}^2$$

19.



$$A_{\text{rec}} = 15 \cdot 34 = 510 \text{ ft}^2$$

$$A_{\text{semi}} = \frac{\pi (7.5)^2}{2} = 88.3 \text{ ft}^2$$

Solve each problem using your knowledge of 2D figures.

20. A round frisbee has a circumference of 76 inches. What is the radius of the frisbee to the nearest inch?

$$\frac{76}{\pi} = \frac{\pi d}{\pi}$$

$$d = 24.2 \text{ in}$$

$$r = 12.1 \text{ in}$$

21. A triangular dorito has an area of 1.2 square inches. If the base of the dorito is 1.5 inches, what is the height?

$$2 \cdot 1.2 = \frac{1.5h}{2} \cdot 2$$

$$\frac{2.4}{1.5} = \frac{1.5h}{1.5}$$

$$h = 1.6 \text{ in}$$

22. A round dining table has a diameter of 2.5 meters. A round tablecloth has a diameter of 3.5 meters. What is the area to the nearest tenth of a meter of the part of the tablecloth that will hang down the side of the table?

$$A_{\text{cloth}} = \pi (1.75)^2 = 9.6 \text{ m}^2$$

$$A_{\text{table}} = \pi (1.25)^2 = 4.9 \text{ m}^2$$

$$9.6 - 4.9 = 4.7 \text{ m}^2$$



$$C = \pi (10) = 31.4 \text{ ft}$$

$$10 + 15.7 = 25.7 \text{ ft}$$

$$25.7 \text{ ft}$$

24. What would happen to the area of a figure if both dimensions are tripled?

$$\times 9$$

(draw pictures to help)

25. What would happen to the area of a circle if the radius is doubled? tripled? quadrupled?

$$\text{radius doubled: } \times 4$$

$$\text{radius tripled: } \times 9$$

$$\text{radius quadrupled: } \times 16$$

$$\frac{510.0}{+ 88.3} = 598.3 \text{ ft}^2$$