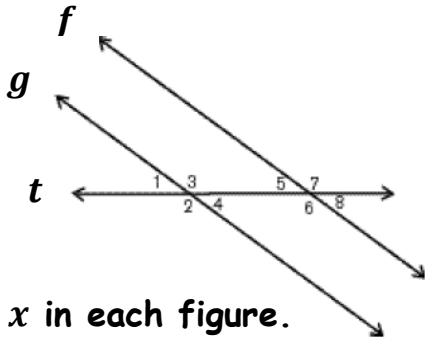
Calculators = OK!

Name _____ Date _____ Pd_____

Chapter 11 Bringing It All Together

(Angles & Line Relationships, Quadrilaterals, Polygons, and Area of Figures/Circles and Circumference of Circles)

In the figure at the right, $f \parallel g$ and t is a transversal. If $m\angle 1 = 61^0$, find the measure of each angle.

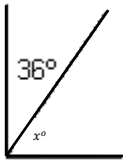


1) $m\angle 3 =$ _____ 2) $m\angle 4 =$ _____

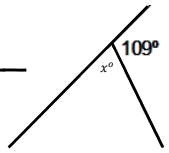
3) $m\angle 5 =$ _____ 4) $m\angle 6 =$ _____

Classify the pairs of angles shown. Then find the value of x in each figure.

5) _____ ; _____

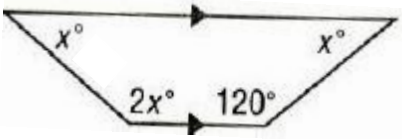


6) _____ ; _____

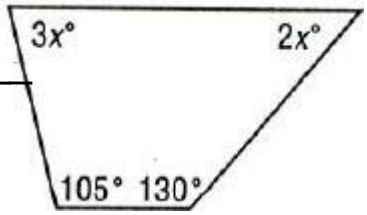


Find the value of each missing angle.

7) _____ ; _____



8) _____ ; _____



Determine whether each statement is *sometimes, always,* or *never*.

9) _____ A rectangle is a square. 10) _____ A rhombus is a trapezoid.

11) _____ A square is a rhombus. 12) _____ A parallelogram is a rectangle.

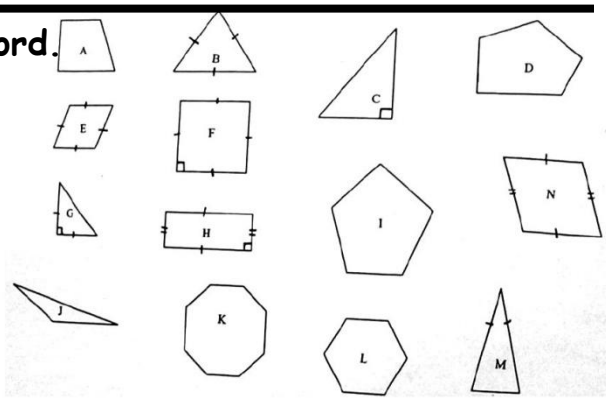
Find the sum of the measures of the interior angles of each polygon.

13) octagon _____ 14) 16-gon _____

Find the measure of an interior angle of each polygon.

15) regular hexagon _____ 16) regular 20-gon _____

List *all* letters that qualify for the given vocabulary word.



17) triangles _____ 18) squares _____

19) rectangles _____ 20) trapezoids _____

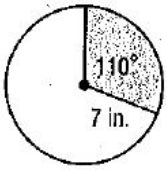
21) rhombus (i) _____ 22) pentagons _____

23) parallelograms _____

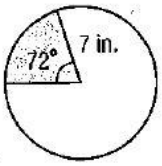
OVER ⟶

Name _____ Date _____ Pd_____

Using the space provided, find the area of each shaded sector. Round to the nearest tenth. Show your formula and work. $\pi = 3.14$

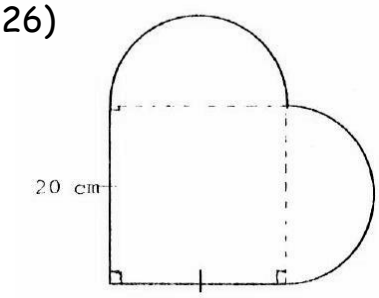
24) 

Area = _____

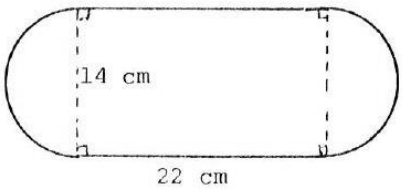
25) 

Area = _____

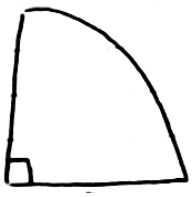
Using the space provided, find the perimeter and area of each figure. Round to the nearest tenth. Show your formula and work. $\pi = 3.14$

26) 

Perimeter = _____ Area = _____

27) 

Perimeter = _____ Area = _____

28) 

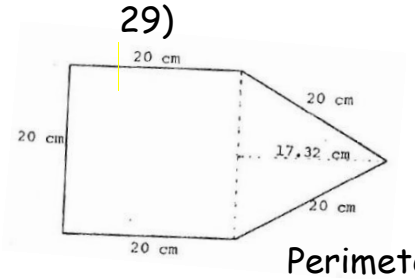
$\pi = \frac{22}{7}$ in

Perimeter = _____ Area = _____

OVER⟶

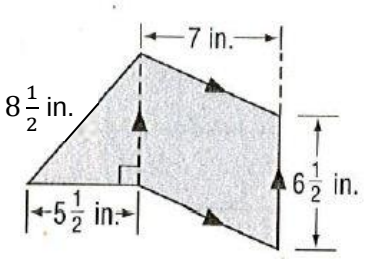
Name _____ Date _____ Pd_____

29)



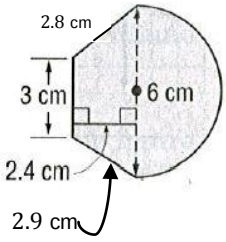
Perimeter = _____ Area = _____

30)



Perimeter = _____ Area = _____

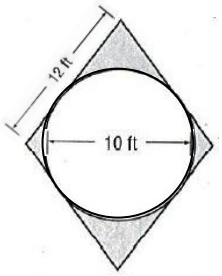
31)



Perimeter = _____ Area = _____

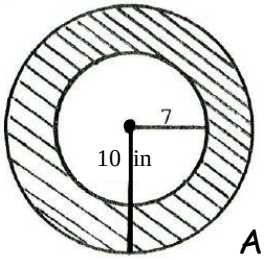
Using the space provided, find the shaded area. Round to the nearest tenth. Show your formula and work. $\pi = 3.14$

32)



Area = _____

33)



Area = _____

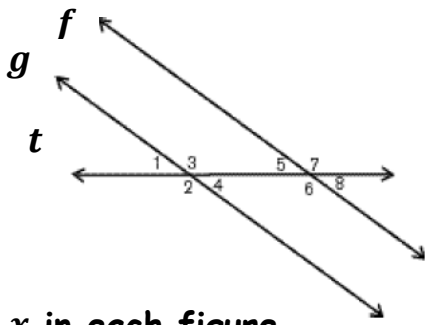
FINALLY DONE

Name _____ Date _____ Pd_____

Chapter 11 BIT→ Calculators = OK! Answer Key

(Angles & Line Relationships, Quadrilaterals, Polygons, and Area of Figures/Circles and Circumference of Circles)

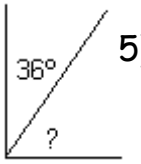
In the figure at the right, $f \parallel g$ and t is a transversal. If $m\angle 1 = 61^0$, find the measure of each angle.



1) $m\angle 3 = \mathbf{119^0}$ 2) $m\angle 4 = \mathbf{61^0}$

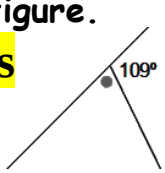
3) $m\angle 5 = \mathbf{61^0}$ 4) $m\angle 6 = \mathbf{119^0}$

Classify the pairs of angles shown. Then find the value of x in each figure.



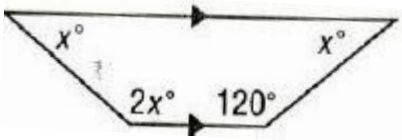
5) **Complementary Angles** $\mathbf{54^0}$

6) **Supplementary Angles** $\mathbf{71^0}$

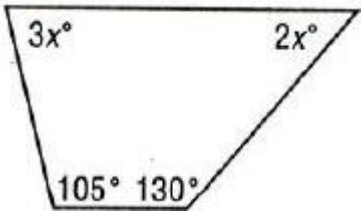


Find the value of each missing angle.

7) $\mathbf{60^0}$; $\mathbf{120^0}$



8) $\mathbf{50^0}$; $\mathbf{75^0}$



Determine whether each statement is *sometimes, always,* or *never*.

9) ***sometimes*** A rectangle is a square. 10) ***never*** A rhombus is a trapezoid.

11) ***always*** A square is a rhombus. 12) ***sometimes*** A parallelogram is a rectangle.

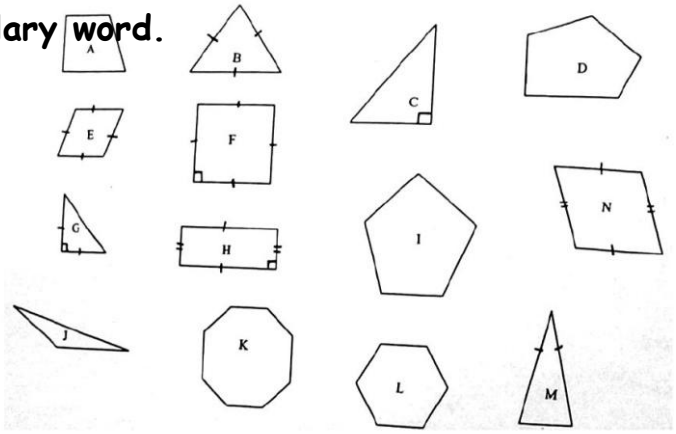
Find the sum of the measures of the interior angles of each polygon.

13) octagon $\mathbf{1,080^0}$ 14) 16-gon $\mathbf{2,520^0}$

Find the measure of an interior angle of each polygon.

15) regular hexagon $\mathbf{120^0}$ 16) regular 20-gon $\mathbf{162^0}$

List *all* letters that qualify for the given vocabulary word.



17) triangles ***B, C, G, J, M*** 18) squares ***F***

19) rectangles ***F, H*** 20) trapezoids ***A***

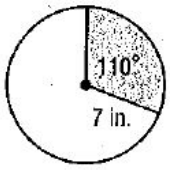
21) rhombus (i) ***E, F*** 22) pentagons ***D, I***

23) parallelograms ***E, F, H, N***

Name _____ Date _____ Pd_____

Using the space provided, find the area of each shaded sector. Round to the nearest tenth. Show your formula and work. $\pi = 3.14$

24)

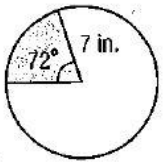


$$A = \frac{N}{360}(\pi r^2)$$

$$A = \frac{110}{360}(3.14 \times 7^2)$$

$$A \approx 47.0\ in^2$$

25)



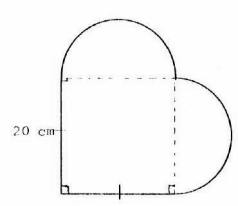
$$A = \frac{N}{360}(\pi r^2)$$

$$A = \frac{72}{360}(3.14 \times 7^2)$$

$$A \approx 30.8\ in^2$$

Using the space provided, find the perimeter and area of each figure. Round to the nearest tenth. Show your formula and work. $\pi = 3.14$

26)



$$P = 2a + \pi d$$

$$P = 2(20) + 3.14 \times 20$$

$$P = 102.8\ cm$$

$$A = bh + \pi r^2$$

$$A = 20 \times 20 + 3.14 \times 10^2$$

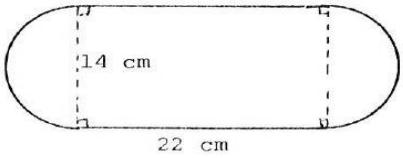
$$A = 714.0\ cm^2$$

27)

$$P = 2l + \pi d$$

$$P = 2(22) + 3.14 \times 14$$

$$P = 88.0\ cm$$

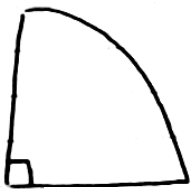


$$A = bh + \pi r^2$$

$$A = 22 \times 14 + 3.14 \times 7^2$$

$$A = 461.9\ cm^2$$

28)



$\pi = \frac{22}{7}$ in

$$P = 2l + \frac{1}{4}\pi d$$

$$P = 2(14) + \frac{1}{4} \times \frac{22}{7} \times 28$$

$$P = 50.0\ in$$

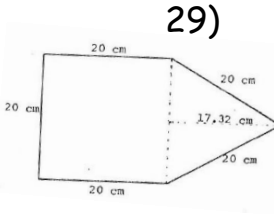
$$A = \frac{1}{4}\pi r^2$$

$$A = \frac{1}{4} \times \frac{22}{7} \times \frac{14}{1} \times \frac{14}{1}$$

$$A = 154.0\ in^2$$

Name _____ Date _____ Pd_____

29)



$P = 5a$

$P = 5(20)$

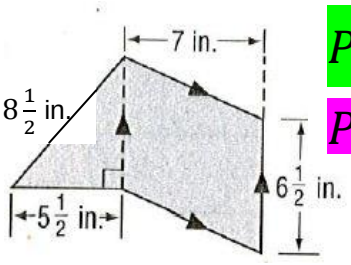
$P = 100.0\ cm$

$A = lw + \frac{1}{2}bh$

$A = 20 \times 20 + \frac{1}{2} \times 20 \times 17.32$

$A = 573.2\ cm^2$

30)



$P = 2a + b + c + d$

$P = 2(7) + 6\frac{1}{2} + 5\frac{1}{2} + 8\frac{1}{2}$

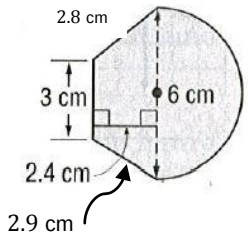
$P = 34.5\ in$

$A = bh + \frac{1}{2}bh$

$A = 6\frac{1}{2} \times 7 + \frac{1}{2} \times 5\frac{1}{2} \times 6\frac{1}{2}$

$A = 63.4\ in^2$

31)



$P = a + b + c + \frac{1}{2}\pi d$

$P = 2.8 + 3 + 2.9 + \frac{1}{2} \times 3.14 \times 3$

$P = 13.4\ cm$

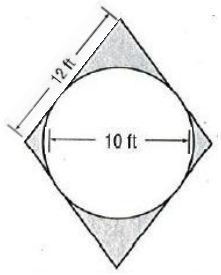
$A = \frac{1}{2}\pi r^2 + \frac{1}{2}(b_1 + b_2)h$

$A = \frac{1}{2} \times 3.14 \times 3^2 + \frac{1}{2}(6 + 3)2.4$

$A = 24.9\ cm^2$

Using the space provided, find the shaded area. Round to the nearest tenth. Show your formula and work. $\pi = 3.14$

32)

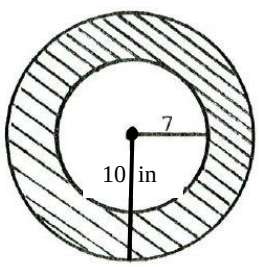


$A = bh - \pi r^2$

$A = 12 \times 10 - 3.14 \times 5^2$

$A = 41.5\ ft^2$

33)



$A = \pi r^2 - \pi r^2$

$A = 3.14 \times 10^2 - 3.14 \times 7^2$

$A = 160.1\ in^2$

FINALLY DONE