Geometry CP

Assessment 9 Review

Name Answer Key

Color Block _____

Learning Goals

I can…

- Use the properties of quadrilaterals to find a missing angle measure
- Use the properties of parallelograms to solve for missing variables
- Use the properties of trapezoids to solve for missing angles
- Find area and perimeter of different shapes (square, rectangle, parallelogram, trapezoid using given formulas
- Find the area and circumference of circles
- Find the area and perimeter of compound shapes (shapes made of other shapes)

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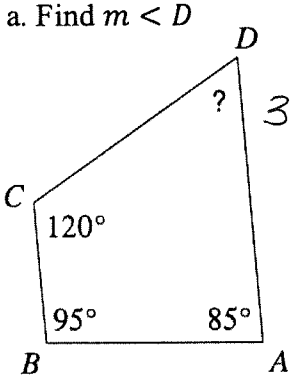
1. Quadrilaterals → Angles all add to 360°

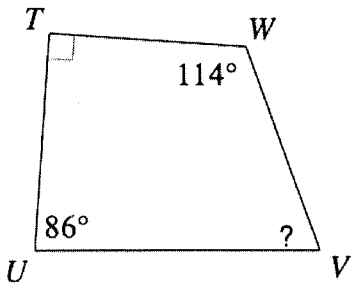
a. Find $m < D$



360 − 120 − 95 − 85

$60° = ?$

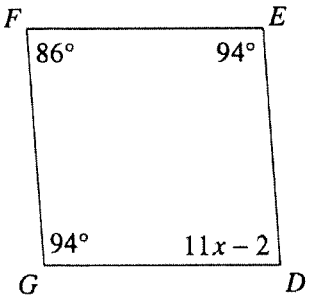
b. Find $m < W$



360 − 90 − 86 − 114 = 70

$70° = ?$

c. Solve for x



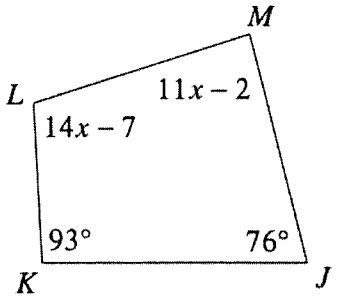
360 − 86 − 94 − 94 = 86

$11x - 2 = 86$

$11x = 88$

$x = 8$

d. Solve for x



$93 + 76 + 14x - 7 + 11x - 2 = 360$

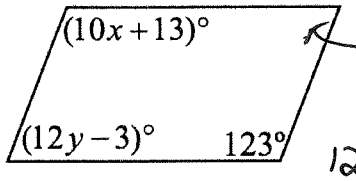
$25x + 160 = 360$

$25x = 200$

$x = 8$

2. Parallelograms

a. Find the values of x and y

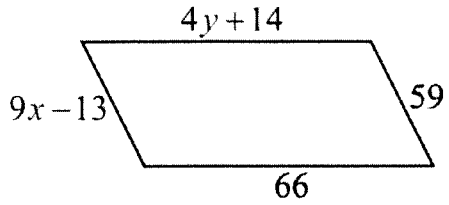


180−123
57

$10x+13=123$
$10x=110$
10
$x=11$

$12y-3=57$
$12y=60$
$y=5$

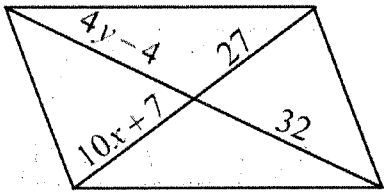
b. Find the values of x and y



$9x-13=59$
$+13 \quad +13$
$9x=72$
9
$x=8$

$4y+14=66$
$-14 \quad -14$
$4y=52$
4
$y=13$

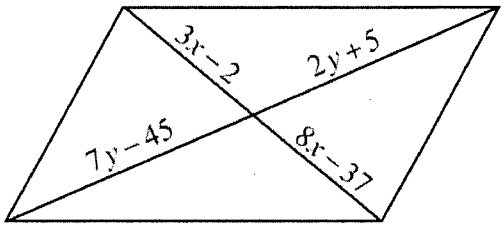
c. Find the values of x and y



$4y-4=32$
$+4 \quad +4$
$4y=36$
4
$y=9$

$10x+7=27$
$-7 \quad -7$
$10x=20$
10
$x=2$

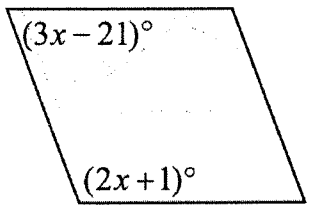
d. Find the values of x and y



$3x-2=8x-37$
$+37 \quad +37$
$3x+35=8x$
$-3x \quad -3x$
$35=5x$
5
$7=x$

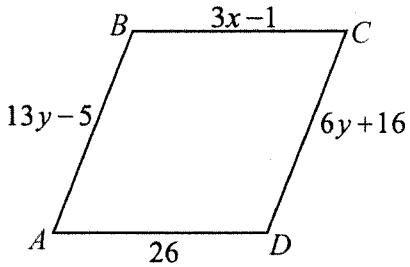
$7y-45=2y+5$
$+45 \quad +45$
$7y=2y+50$
$-2y \quad -2y$
$5y=50$
5
$y=10$

e. Find the value of x



$3x-21+2x+1=180$
$5x-20=180$
$+20 \quad +20$
$5x=200$
5
$x=40$

f. Find the values of x and y

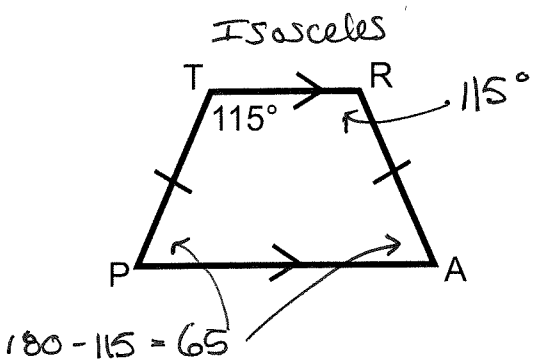


$3x-1=26$
$+1 \quad +1$
$3x=27$
3
$x=9$

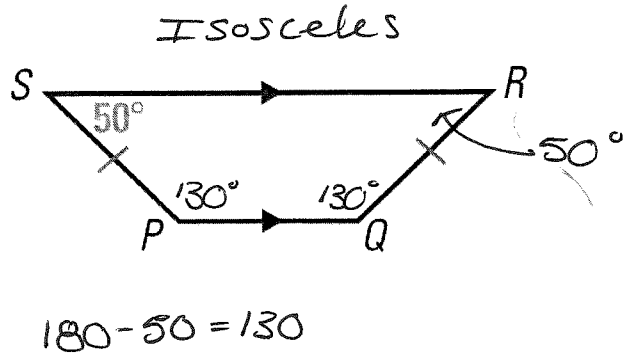
$13y-5=6y+16$
$+5 \quad +5$
$13y=6y+21$
$-6y \quad -6y$
$7y=21$
7
$y=3$

3. Trapezoids

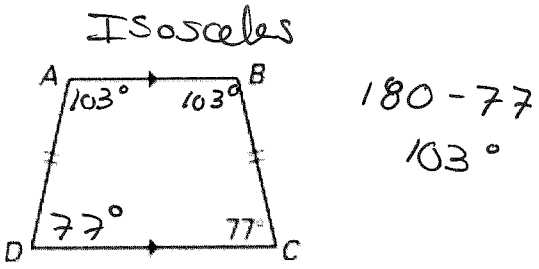
a. Find the measures of the missing angles



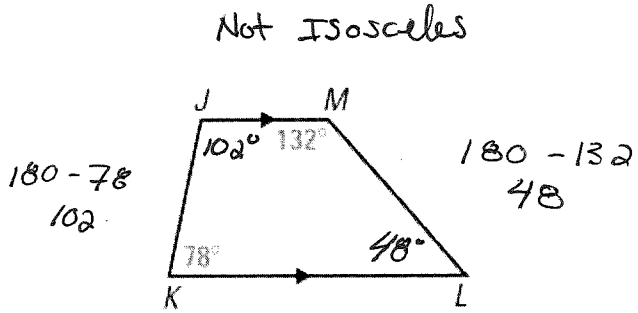
b. Find the measures of the missing angles



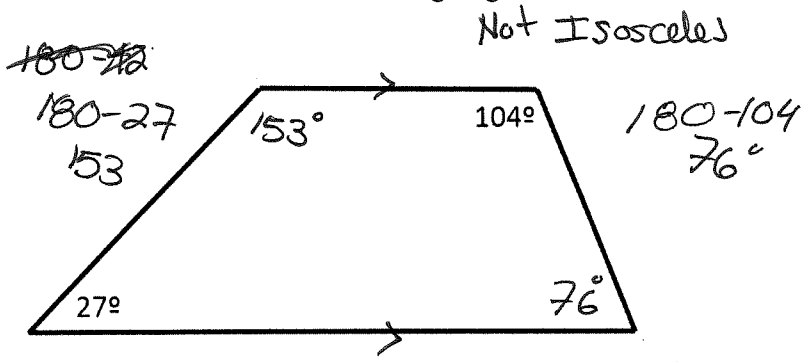
c. Find the measures of the missing angles



d. Find the measures of the missing angles

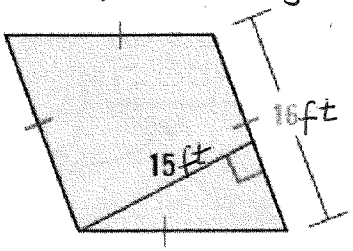


e. Find the measures of the missing angles.



4. Find the area and perimeter of the shapes below

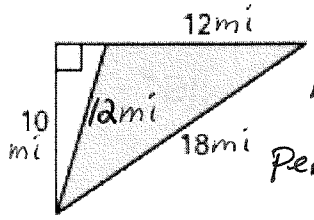
a. Parallelogram ($A=b\cdot h$)



Area $= 16 \times 15 = 240\ ft^2$

Perimeter $= 16+16+16+16 = 64$ Ft

b. Triangle ($A=\frac{1}{2}\cdot b\cdot h$)

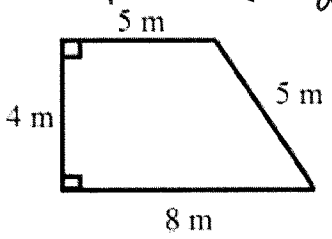


Area: $\frac{1}{2}\cdot 10\cdot 12 = 60 mi^2$

Perimeter: $12+12+18$

$42 mi$

c. Trapezoid ($A=\frac{1}{2}\cdot h\cdot(b_1+b_2)$)



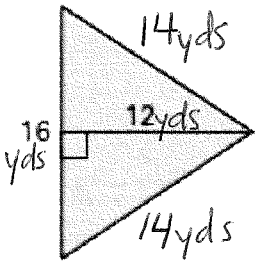
Area: $\frac{1}{2}\cdot 4\cdot(5+8)$

$26 m^2$

Perimeter: $4+5+5+8$

$22m$

d. Triangle ($A=\frac{1}{2}\cdot b\cdot h$)



Area: $\frac{1}{2}\cdot 16\cdot 12$

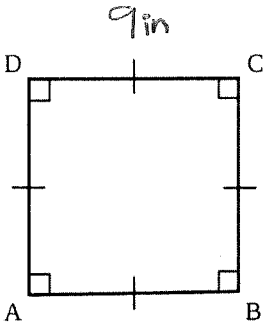
$96 yds^2$

Perimeter:

$14+14+16$

$44 yds$

e.



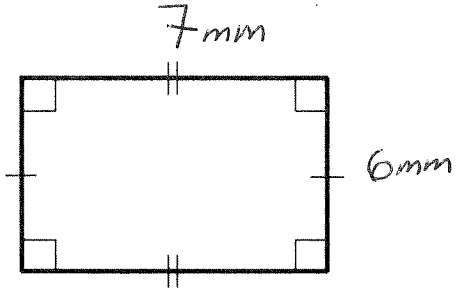
Area $= 9^2 = 81 in^2$

Perimeter $= 9+9+9+9$

$36 in$

Square ($A=s^2$)

f.

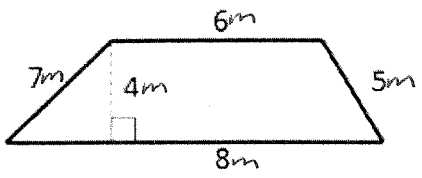


Rectangle ($A=l\cdot w$)

Area: $7\times 6 = 42 mm^2$

Perimeter: $7+7+6+6 = 26 mm$

g.



Trapezoid ($A=\frac{1}{2}\cdot h\cdot(b_1+b_2)$)

Area: $\frac{1}{2}\cdot 4\cdot(6+8)$

$= 28 m^2$

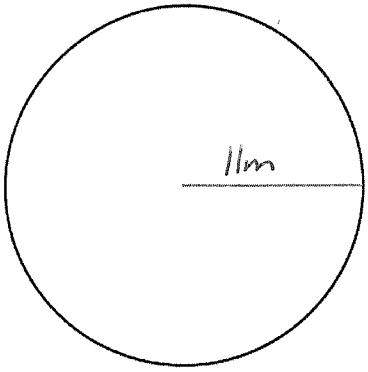
Perimeter: $7+6+5+8$

$26 m$

r = Radius (distance from Middle to edge)

5. Find the area and circumference of the circles below

a.



Area: πr^2

Circumference: $2 \cdot \pi \cdot r$

$r = 11$

$A = \pi \cdot 11^2$

$= 121\pi m^2$

OR

$= 121(3.14)$

$= 379.94 m^2$

$C = 2 \cdot \pi \cdot 11$

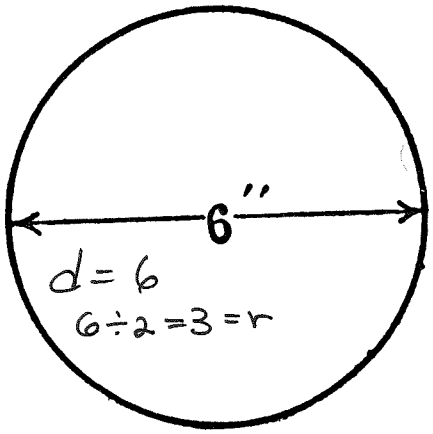
$= 22\pi m$

OR

$= 22(3.14)$

$= 69.08 m$

b.



$d = 6$

$6 \div 2 = 3 = r$

$A = \pi \cdot 3^2$

$= 9\pi in^2$

OR

$= 9(3.14)$

$= 28.26 in^2$

$C = 2 \cdot \pi \cdot 3$

$= 6\pi in$

OR

$= 6(3.14)$

$= 18.84 in$