

Week 1 Geo Part 1 - solutions

Monday, April 6, 2020 3:02 PM

Big Ideas Math::Assignment Preview

4/6/20, 2:58 PM

Geometry: CC 2015

Section 1.4 Exercises

Perimeter and Area in the Coordinate Plane

Exercise 29

a. Use the diagram.

Handwritten notes:  
 $s=2, p=8$   
 $s=4, p=16$   
 $s=8, p=32$   
 $A=4$   
 $A=16$   
 $A=64$   
Perimeter doubled

Find the areas of square  $EFGH$  and square  $EJKL$ .

Area of  $EFGH = 4$  square units  
Area of  $EJKL = 16$  square units

b. What happens to the area when the perimeter of square  $EFGH$  is doubled? Explain.

☐ The area is doubled because when the side length becomes  $2s$ , the area becomes  $s^2 + s^2$ .

☐ The area is doubled because when the side length becomes  $2s$ , the area becomes  $2s^2$ .

☒ The area is quadrupled because when the side length becomes  $2s$ , the area becomes  $(2s)^2 = 4s^2$ .

☐ The area becomes 8 times greater, because when the side length becomes  $2s$ , the area becomes  $2(2s)^2 = 8s^2$ .

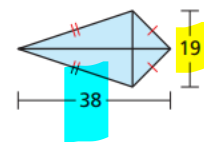
Handwritten notes:  
 $2 \times 2 = 4$   
 $2 \times 4 = 8$   
 $2 \times 8 = 16$   
 $2 \times 16 = 32$   
 $2 \times 32 = 64$   
 $2 \times 64 = 128$   
 $2 \times 128 = 256$   
 $2 \times 256 = 512$   
 $2 \times 512 = 1024$   
 $2 \times 1024 = 2048$   
 $2 \times 2048 = 4096$   
 $2 \times 4096 = 8192$   
 $2 \times 8192 = 16384$   
 $2 \times 16384 = 32768$   
 $2 \times 32768 = 65536$   
 $2 \times 65536 = 131072$   
 $2 \times 131072 = 262144$   
 $2 \times 262144 = 524288$   
 $2 \times 524288 = 1048576$   
 $2 \times 1048576 = 2097152$   
 $2 \times 2097152 = 4194304$   
 $2 \times 4194304 = 8388608$   
 $2 \times 8388608 = 16777216$   
 $2 \times 16777216 = 33554432$   
 $2 \times 33554432 = 67108864$   
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Week 1 Geo Part 2 - solutions

Monday, April 6, 2020 3:02 PM

Geometry: CC 2015  
Section 11.3 Exercises  
Areas of Polygons

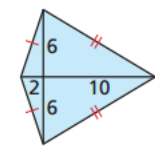
Exercise 3  
Find the area of the kite.



A =  square units

$A = \frac{d_1 \cdot d_2}{2} = \frac{19 \cdot 38}{2} = \frac{722}{2} = 361$

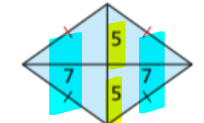
Exercise 4  
Find the area of the kite.



A =  square units

$d_1 = 6 + 6 = 12$   
 $d_2 = 2 + 10 = 12$   
 $A = \frac{12 \cdot 12}{2} = \frac{144}{2} = 72$

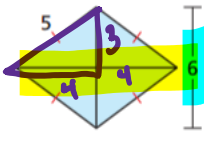
Exercise 5  
Find the area of the rhombus.



A =  square units

$d_1 = 5 + 5 = 10$   
 $d_2 = 7 + 7 = 14$   
 $A = \frac{10 \cdot 14}{2} = \frac{140}{2} = 70$

Exercise 6  
Find the area of the rhombus.

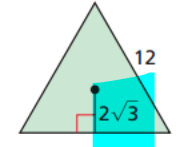


A =  square units

$5^2 = x^2 + 3^2$   
 $25 = x^2 + 9$   
 $25 - 9 = x^2$   
 $16 = x^2$   
 $\sqrt{16} = x$   
 $4 = x$   
 $A = \frac{d_1 \cdot d_2}{2}$   
 $A = \frac{6 \cdot 8}{2}$   
 $A = \frac{48}{2}$   
 $A = 24$

Exercise 19

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



A  $\approx$   square units

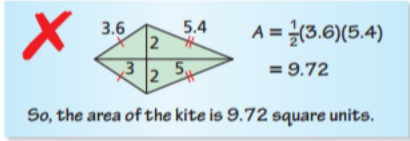
$A = \frac{a \cdot p}{2}$   
perimeter  $= p = 12 \times 3$   
 $p = 36$   
 $A = \frac{2\sqrt{3} \cdot 36}{2}$   
 $A = 62.35$

Exercise 24  
Find the area of a pentagon with an apothem of 5 units. Round your answer to the nearest hundredth.

A  $\approx$   square units

central angle:  $\frac{360^\circ}{5 \text{ sides}} = 72^\circ$   
The central angle half =  $36^\circ$   
 $\tan 36^\circ = \frac{x}{5}$   
 $0.7265 = \frac{x}{5}$   
 $3.63 = x$   
Perimeter =  $7.26(5) = 36.3$   
 $A = \frac{P \cdot a}{2}$   
 $= \frac{36.3(5)}{2}$   
 $\approx 90.817$   
Keep all #'s on calculator, round at the end...

Exercise 25  
Describe the error in finding the area of the kite.



- ☐ The incorrect formula was used for area.
- ☐ There was a calculation error in evaluating  $\frac{1}{2}(3.6)(5.4)$ .
- ☒ The side lengths were used instead of the diagonals. don't use 3.6 or 5.4
- ☐ The values of 3 and 5 should have been used instead of 3.6 and 5.4.

Correct the error.

A =  square units

$d_1 = 3 + 5 = 8$   
 $d_2 = 2 + 2 = 4$   
 $A = \frac{8 \cdot 4}{2} = \frac{32}{2} = 16$

# Week1 Geo Exit Ticket

Monday, April 6, 2020

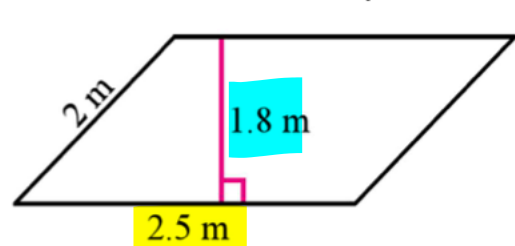
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## Target 11B Exit Ticket

Name: Key

Teacher: Mrs. Burke

Find the area of the parallelogram:

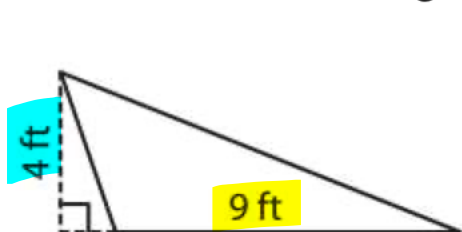


$$A = b \cdot h$$

$$A = 2.5 \times 1.8$$

$$A = 4.5 \text{ m}^2$$

Find the area of the triangle:



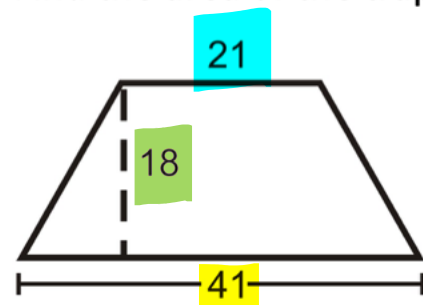
$$A = \frac{b \cdot h}{2}$$

$$A = \frac{9 \cdot 4}{2}$$

$$A = \frac{36}{2}$$

$$A = 18 \text{ ft}^2$$

Find the area of the trapezoid:



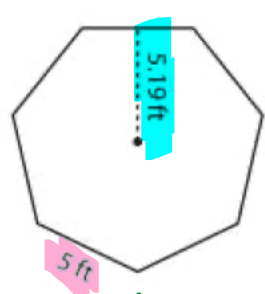
$$A = \left( \frac{b_1 + b_2}{2} \right) h$$

$$A = \left( \frac{41 + 21}{2} \right) \cdot 18$$

$$A = \left( \frac{62}{2} \right) \cdot 18$$

$$A = 31 \cdot 18 = 558 \text{ units}^2$$

Find the area of the regular hexagon: hexagon = 6 sides



$$A = \frac{a \cdot p}{2}$$

$$p = 5 \times \text{\# of sides}$$

$$= 5 \times 6$$

$$p = 30 \text{ ft}$$

$$A = \frac{5.19 \times 30}{2}$$

$$A = \frac{155.7}{2} = 77.85 \text{ or } 77.9 \text{ ft}^2$$

hexagon

\*Sorry, the shape in this image has 7 sides

$$p = 5 \times 7$$

$$p = 35 \text{ ft}$$

$$A = \frac{5.19 \times 35}{2}$$

$$A = \frac{181.65}{2} = 90.825 = 90.8 \text{ ft}^2$$

heptagon