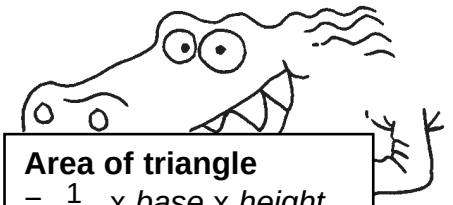
Name _____

Alligator Fun

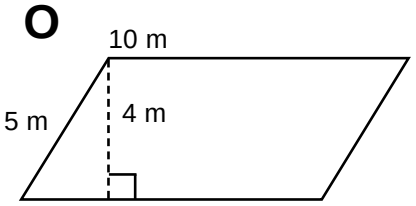


Find the area of each figure.

Area of triangle
$= \frac{1}{2}$ x *base* x *height*

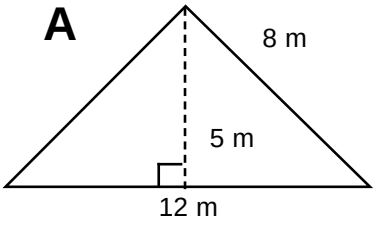
Area of parallelogram
= *base* x *height*

O



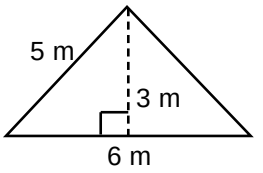
Area = _____

A



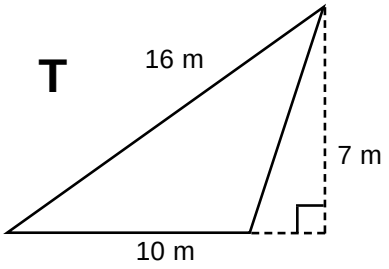
Area = _____

L



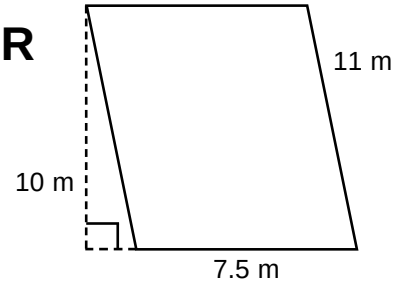
Area = _____

T



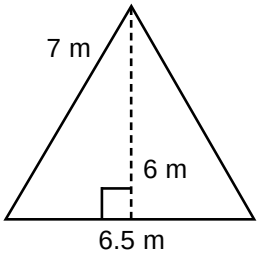
Area = _____

R



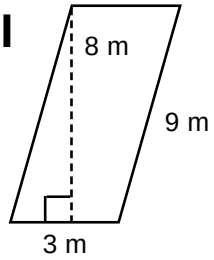
Area = _____

L



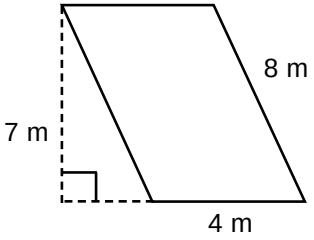
Area = _____

I



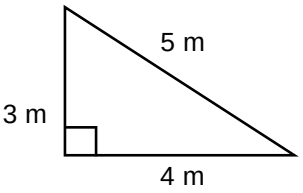
Area = _____

G



Area = _____

I



Area = _____

Riddle: What do you call an alligator who isn't feeling well?

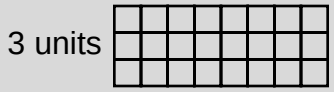
To solve the riddle, write the areas from above in the boxes. List them in order from the smallest to the largest. Then write the matching letters on the lines.

AN ___ ___ ___ ___ ___ ___ ___ ___ ___

Area of Rectangles and Triangles

The area of a figure is the number of square units needed to fill its interior. Area of some shapes can be found by using formulas.

Area of Rectangle



Area = 24 square units

OR

Area = base x height

8 units x 3 units = 24 units^2

Area of Triangle

Counting square units is more difficult than multiplication, but this triangle is really half of the rectangle to the left.

Area = $\frac{1}{2}$(base x height)

Area = $\frac{1}{2}$(8 units x 3 units)

= $\frac{1}{2}$(24 units^2)

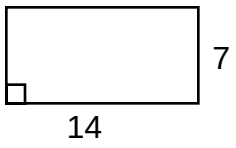
= 12 units^2

Remember: Base and height must be perpendicular.

Find the area of the figures below. Write the answers in the cross–number puzzle.

ACROSS

1.



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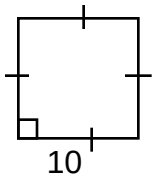
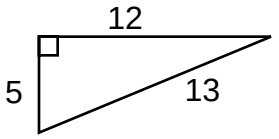
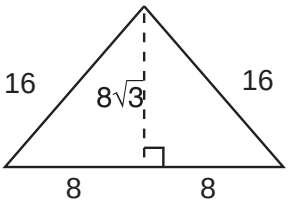


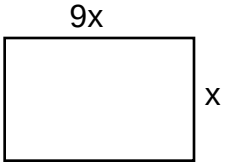
4.



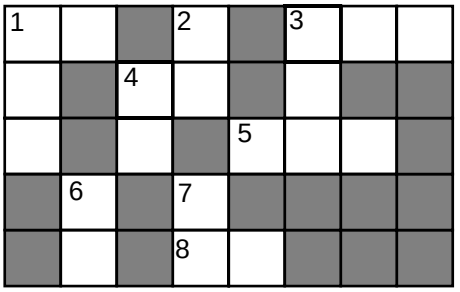
5.



8.

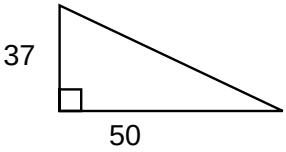


perimeter = 60

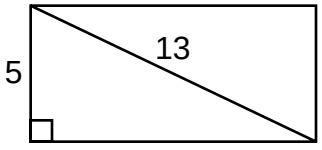


DOWN

1.



2.



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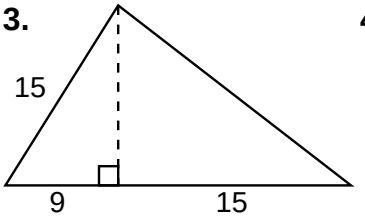
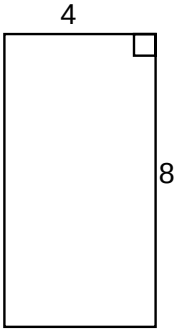
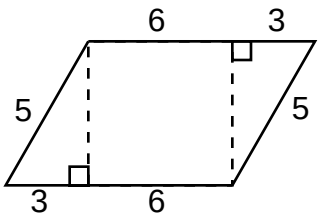


4.



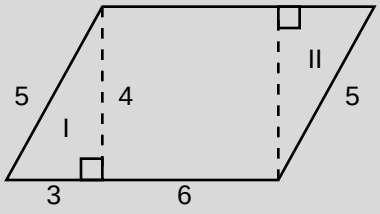
6.



7.

Area of Parallelograms

A parallelogram can be divided into two congruent triangles and one rectangle. Then the area formulas can be applied:



Notice what happens if we use the formula for parallelograms.

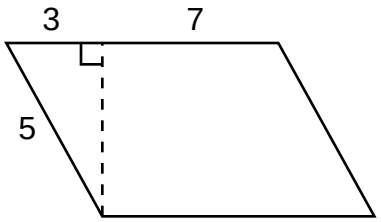
area of rectangle = 4 x 6 = 24
area of ΔI = $\frac{1}{2}$(3 x 4) = 6
area of Δ II = $\frac{1}{2}$(3 x 4) = 6
total area = 36 square units

A = base x height
A = 9 x 4
A = 36 square units

Remember: Base and height must be perpendicular.

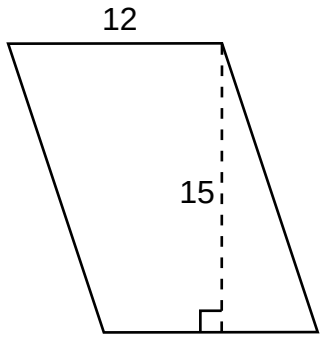
Find the area of the parallelograms. Match answers with the words below to learn about Rear Admiral Grace Hopper.

1.



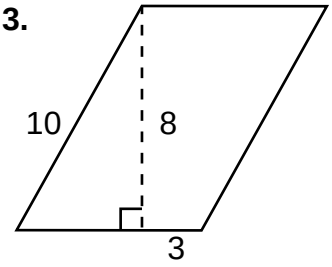
first

2.



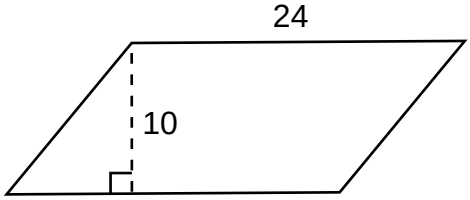
COBOL

3.



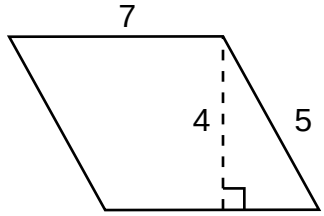
lady

4.



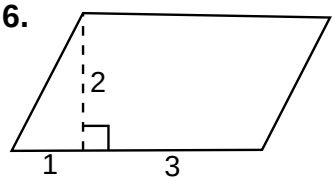
computer

5.



of

6.



also

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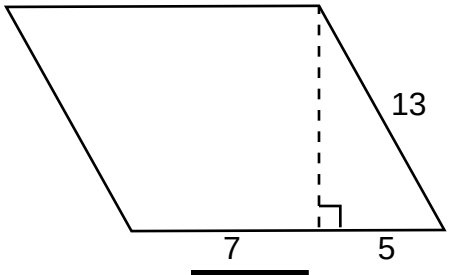
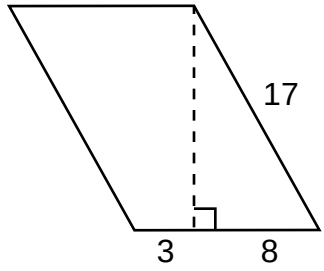


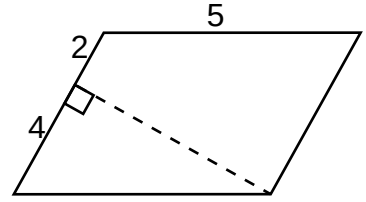
known

8.



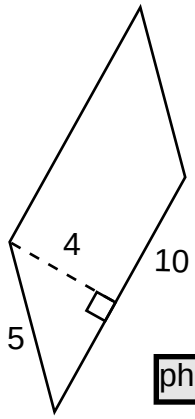
coined

9.



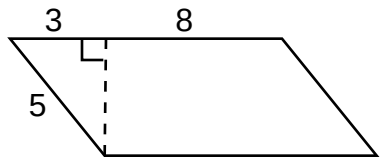
the

10.



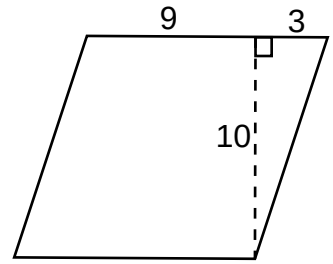
phrase

11.



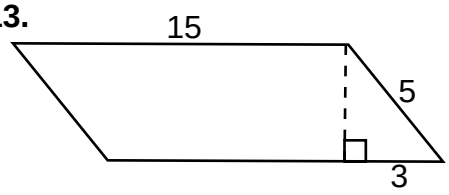
was

12.



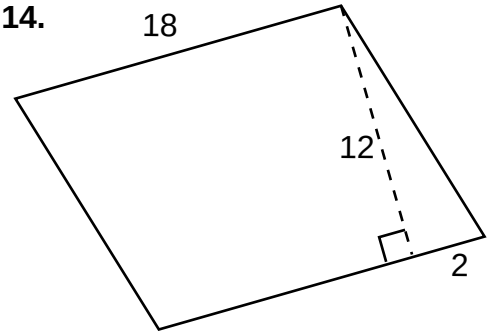
since

13.



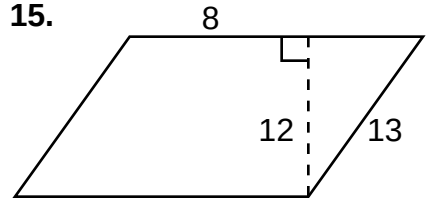
she

14.



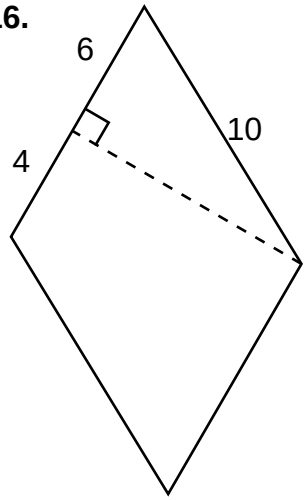
inventors

15.



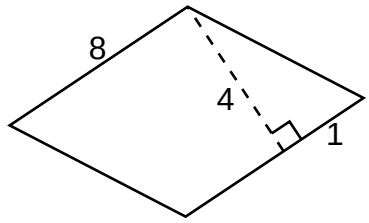
bug

16.



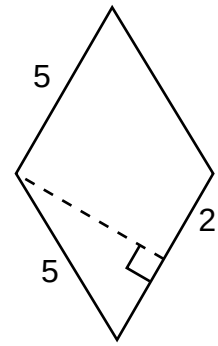
software

17.



one

18.



as

60 44 144 20 18

“40 72 28 80”

120 60 44 32 28 18

216 28 180. 60 8

165 18 52 “240 156”

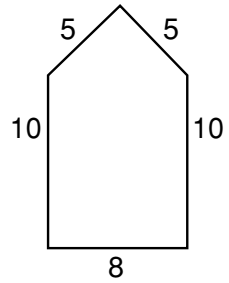
Area of Irregular Shapes

Dividing irregular shapes helps in finding their area.
Try to form shapes that are listed below, then use the area formulas to solve for the total area.

Triangle: $A = \frac{1}{2}bh$ Trapezoid: $A = \frac{1}{2}h(b_1 + b_2)$
Rectangle: $A = bh$ Circle: $A = \pi r^2$
Parallelogram: $A = bh$

Use the decoder to find the animal with the highest blood pressure by solving for the area of each shape.

1.



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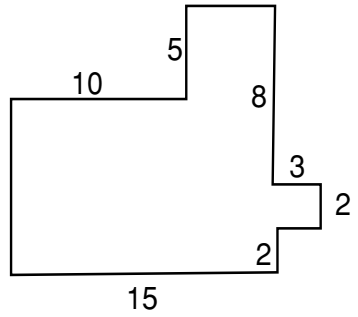

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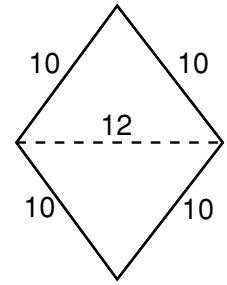

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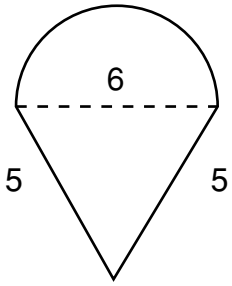

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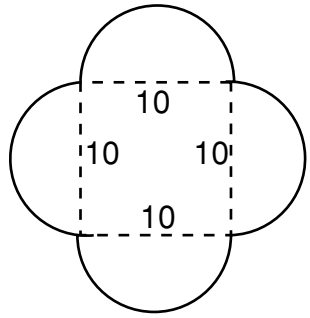

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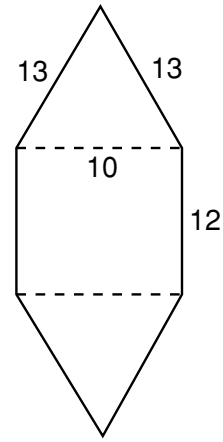

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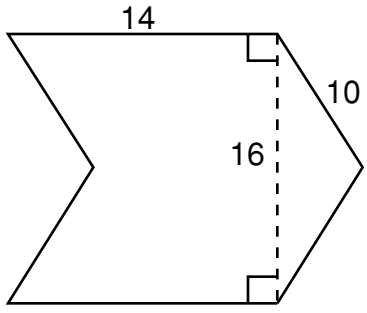

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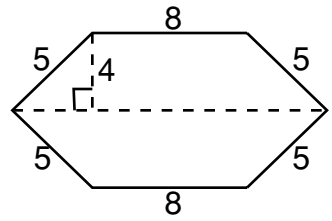

96	224	$12 + \frac{9\pi}{2}$	136	88	240	92	$100 + 50\pi$
A	E	F	G	H	I	R	T

___	___	___		___	___	___	___	___	___	___
5	8	7		2	6	1	3	4	4	7