

9.1 Area of Parallelogram and Triangles

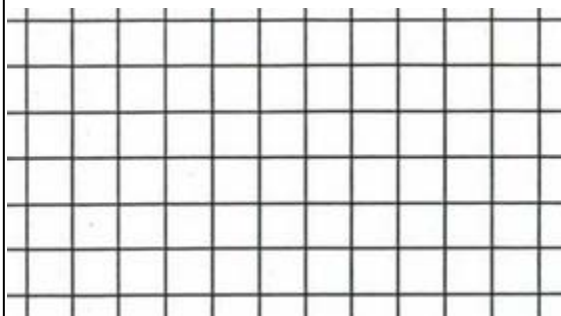
NOTES

Write your questions here!

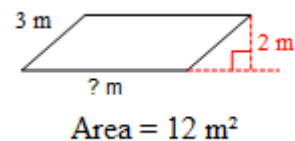
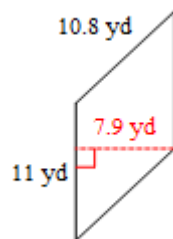


PARALLELOGRAMS:

$$A =$$



TRY IT! Find the area of the following:

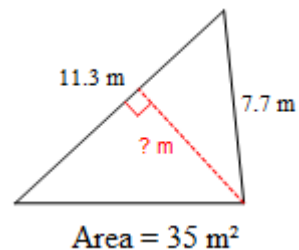
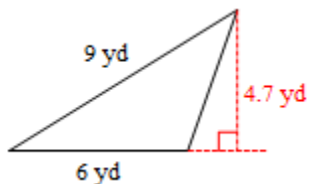


TRIANGLES:

$$A =$$

Altitude =

TRY IT! Find the area of the following:



Write your questions here!

SPECIAL RIGHT TRIANGLES

$$30^\circ - 60^\circ - 90^\circ$$

$$45^\circ - 45^\circ - 90^\circ$$

PYHTAGOREAN THEOREM

$$a^2 + b^2 = c^2$$

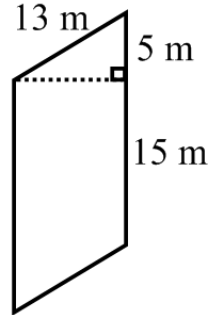
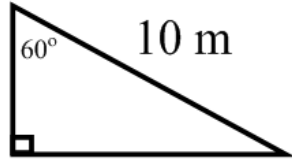
TRIG FUNCTIONS

sin

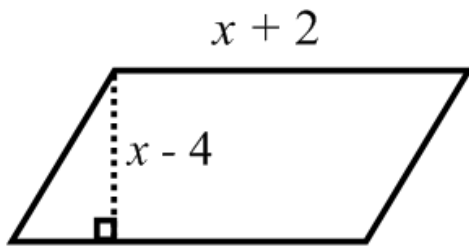
cos

tan

Find the area of the following:



Bring the pain



Area = cm^2

Summarize your notes!

9.1 PRACTICE

Draw the following. Find the area. Label your answer!

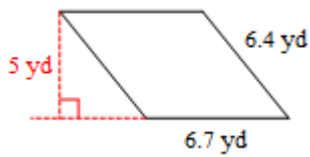
1. \square *YEAH* with base of 12 ft and height of 9 ft.

2. \triangle *YES* with base 4.5 cm and altitude of 3 cm.

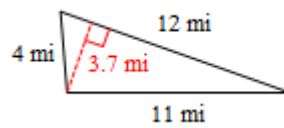
3. 4ft x 8ft rectangle *YEPS*.

Find the area of each. Label your answer!

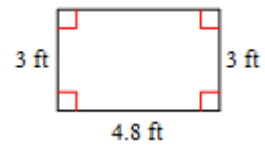
4.



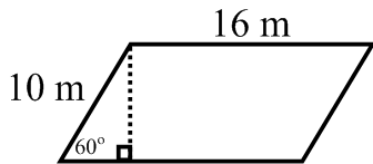
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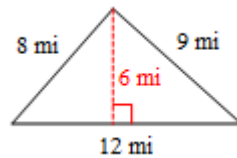
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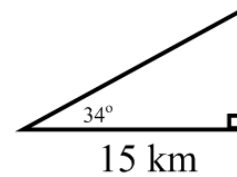
7.



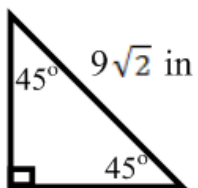
8.



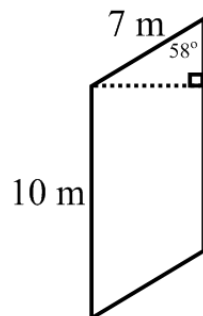
9.



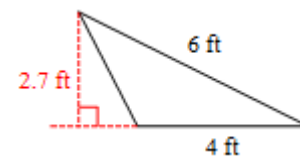
10.



11.

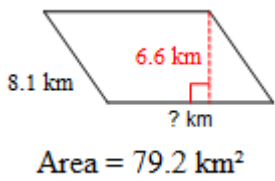


12.

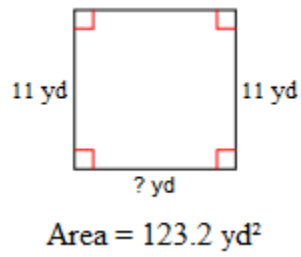


Find the missing measurement. Round to the nearest tenth.

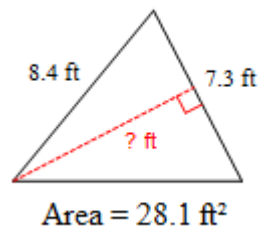
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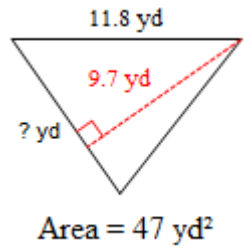
14.



15.

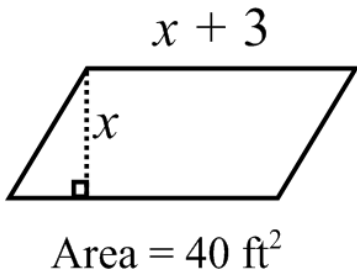


16.

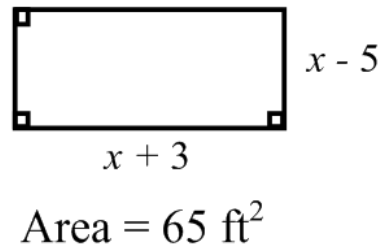


Find x.

17.



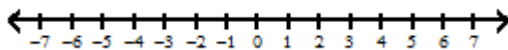
18.



ALGEBRA REVIEW

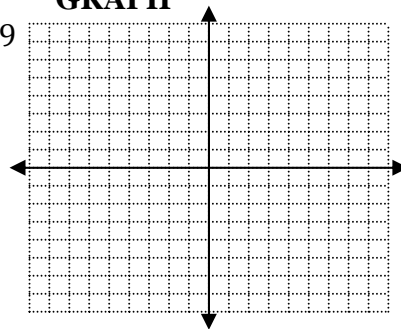
SOLVE

$$2(3 - 2x) < 35$$



GRAPH

$$2x + 3y = -9$$

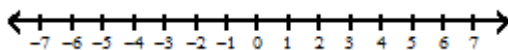


MULTIPLY

$$(2x - 5)(x + 3)$$

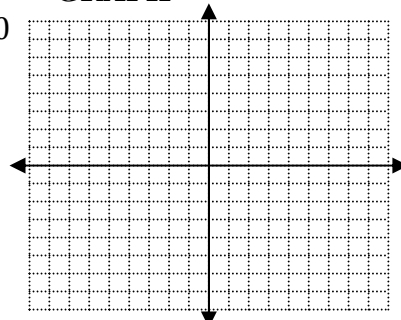
SOLVE

$$4x + 5 \geq 8 + 6x$$



GRAPH

$$4x - 2y \leq 10$$

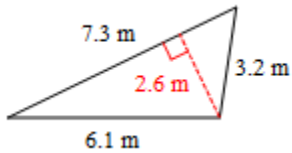


FACTOR

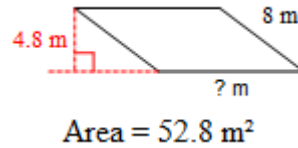
$$6x^2 - 7x - 5$$

9.1 APPLICATION

1. Find the area. Label you answer!



2. Find the missing measurement.



Watch the application walk through video if you need extra help getting started!

4. **COMBINATIONS** Below are shapes made up of 2 or more parallelograms/triangles. Find the area of each.

5. **SAT PREP** Below are sample SAT questions. The SAT is the main standardized test that colleges look at for admission. One is multiple choices; the other is free response where you must grid in your answer. Blow it up.

MULTIPLE CHOICE

In the figure above $AD = 4$, $AB = 3$ and $CD = 9$. What is the area of triangle ABC ?

- A. 13.5
- B. 9
- C. 6
- D. 4.5
- E. 3

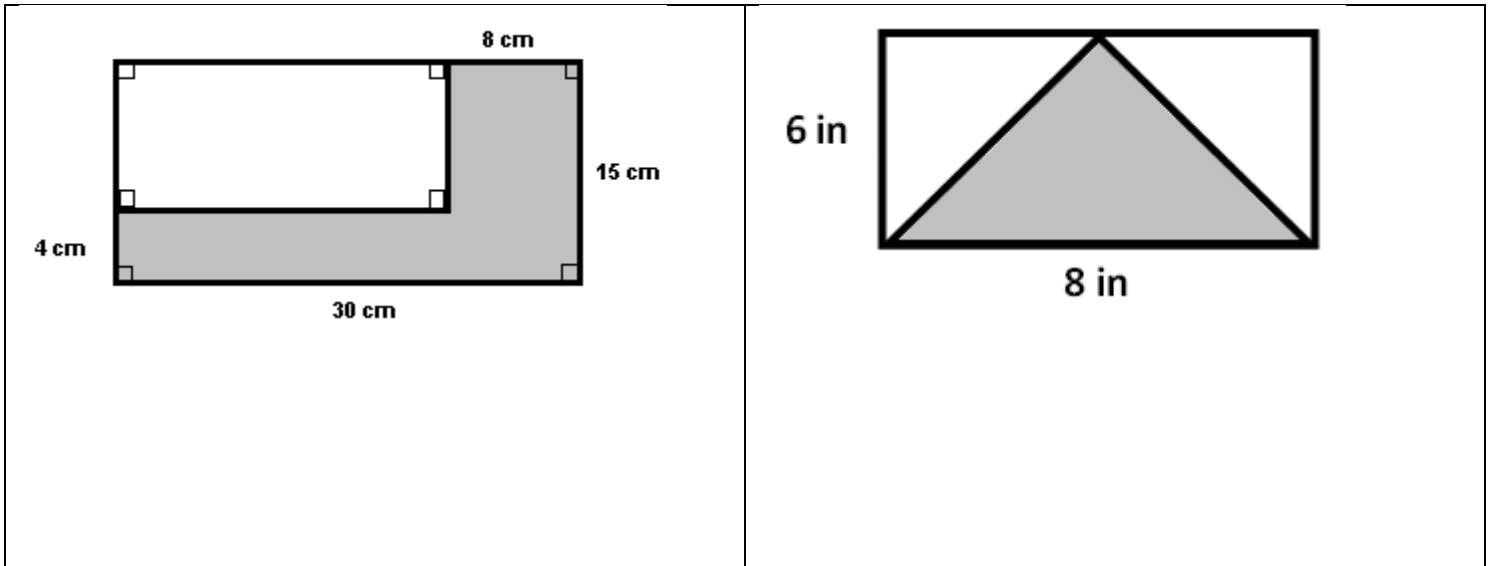
GRID IN

If the area of the triangle is 72, what is the value of x ?

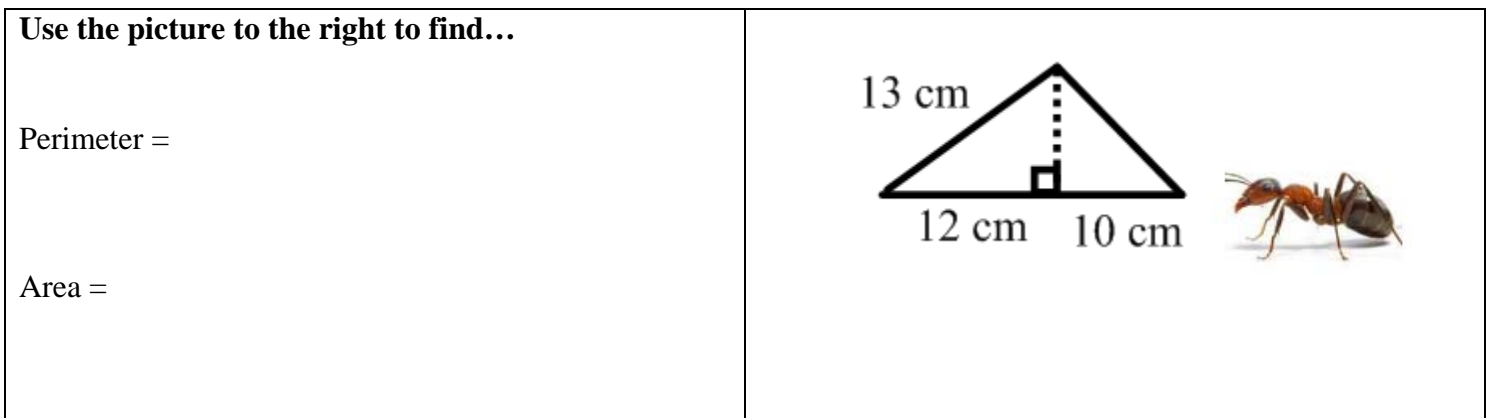
(figure not to scale)

	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
①	①	①	①
②	②	②	②
③	③	③	③
④	④	④	④
⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨

6. **SHADED REGION** Find the area of the shaded region.



7. **PERIMETER** Don't forget about perimeter. Perimeter is the length of all sides added together. Think about walking around the edge of the figure, how far would you walk. (It helps to pretend you are an ant so you can visualize walking around the figure, plus ants are really strong.)



8. **SIMILAR FIGURES** The following triangles are similar. Answer the questions below.

