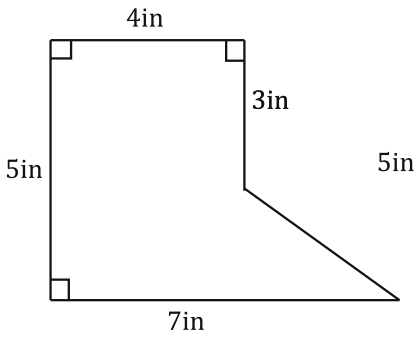
Compound Area Problems

Some shapes don't have a neat little formula.

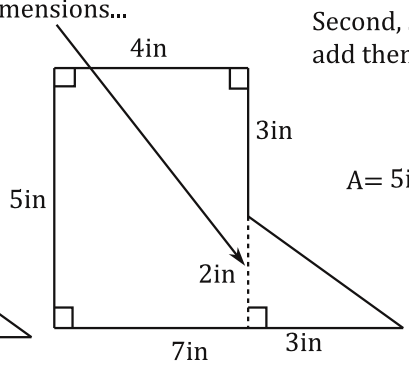
Sometimes you might encounter an odd shape, like a doughnut or an "L-Shape" or something even weirder and stranger. By the way, don't talk to strangers... Anyway, what you can do is use some of the shapes and formulas you know and either add them together (additive) or subtract one or more from another (subtractive.) Let's take a look at an example of each...

Additive.

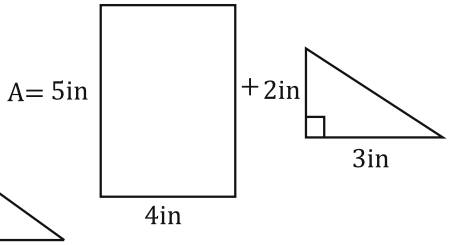
Find the area...



First, cut the figure into familiar shapes and find missing dimensions...



Second, separate the shapes and add them.



Third, find the area of each shape....

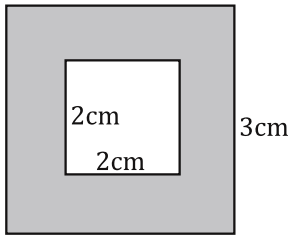
	bh		1/2bh
A=	4*5	+	1/2(2*3)
	$20in^2$		$3in^2$

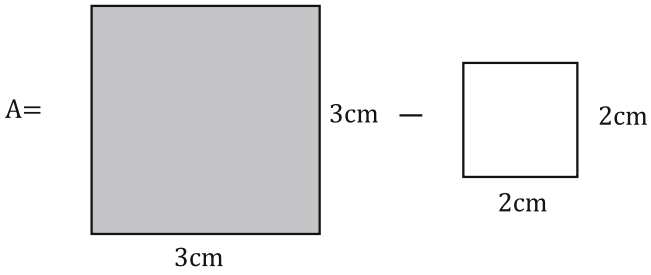
Last, add the areas... $A=20in^2+3in^2=23in^2$

When you actually do the problems you cut the figures up right on the original, but you will have to draw out the separate pieces and show the formulas for their areas... Let's look at some subtractive...

Subtractive.

First, find the area of the shaded region...





Second, Find the area of each shape.

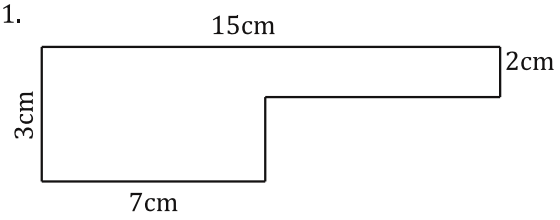
	bh		bh
A=	3*3	—	2*2
	$9cm^2$		$4cm^2$

Last, subtract the areas... $A=9cm^2-4cm^2=5cm^2$

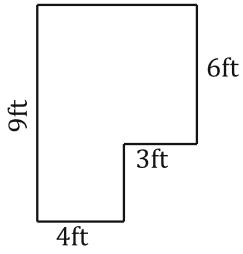
Sometimes you might have to do both on the same shape. Are you ready? Let's practice...

Find the area of each shape...

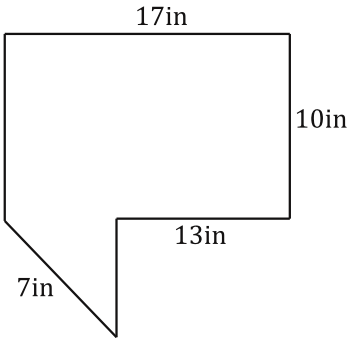
1.



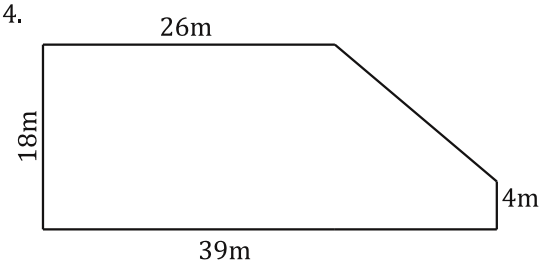
2.



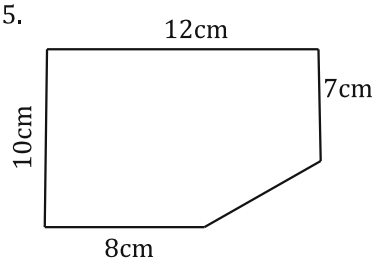
3.



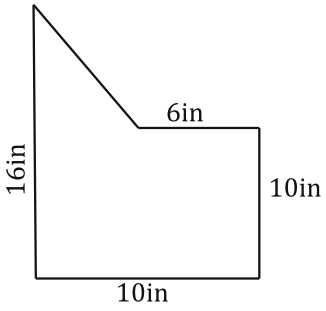
4.



5.



6.

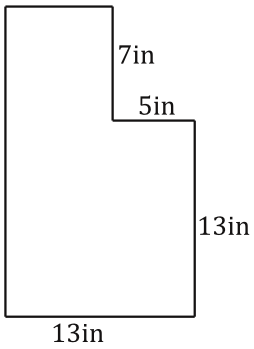


60

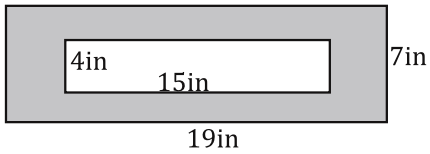
Bubble all the correct answers from above. Don't bubble incorrect answers.

○ 54 ○ 11.36 ○ 78 ○ 114 ○ 77 ○ 112 ○ 611 ○ 632 ○ 37 ○ 181.48

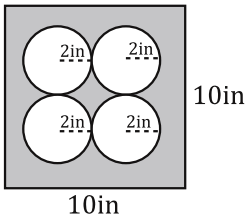
7.



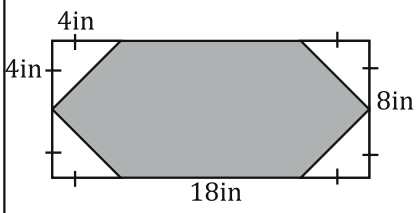
8. Find the shaded area.



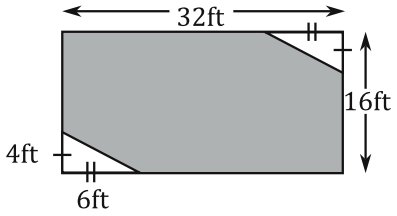
9. Find the shaded area.



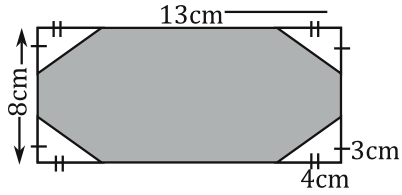
10. Find the shaded area.



11. Find the shaded area.



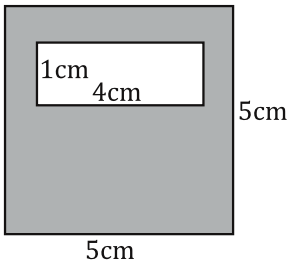
12. Find the shaded area.



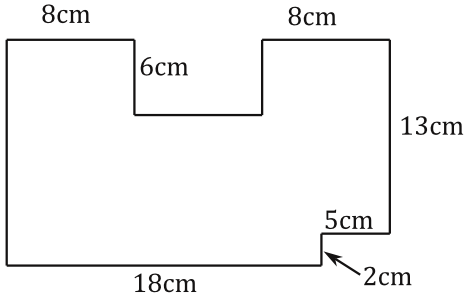
Bubble all the correct answers from above. Don't bubble incorrect answers.

○ 436 ○ 80 ○ 59.72 ○ 58.38 ○ 112 ○ 488 ○ 225 ○ 73 ○ 76 ○ 123

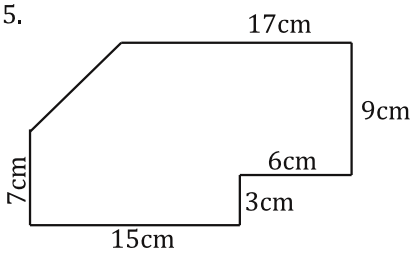
13. Find the shaded area.



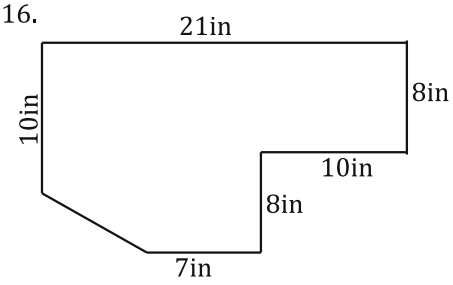
14.



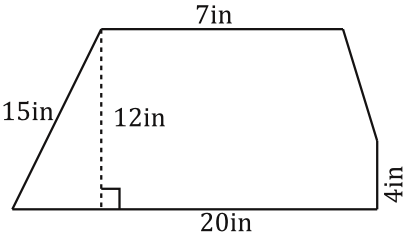
15.



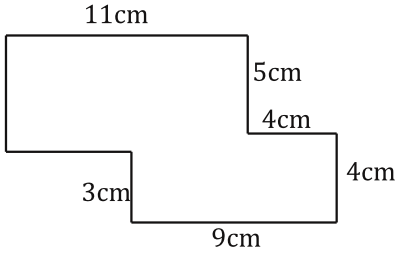
16.



17.



18.



Bubble all the correct answers from above. Don't bubble incorrect answers.

○ 244 ○ 256 ○ 160 ○ 97 ○ 170 ○ 215 ○ 224 ○ 293 ○ 306 ○ 21