

1A Find the 2010<sup>th</sup> term of an arithmetic sequence where

$$a_{23} = 63 \quad \text{and} \quad a_{196} = -940.4$$

1B How many blocks in the 100<sup>th</sup> figure?

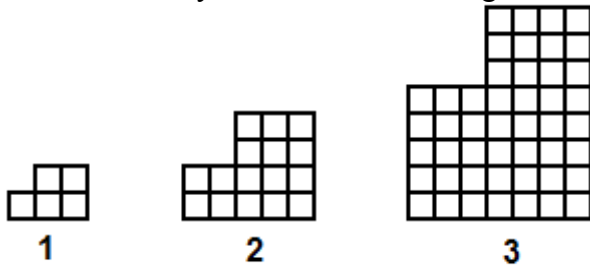
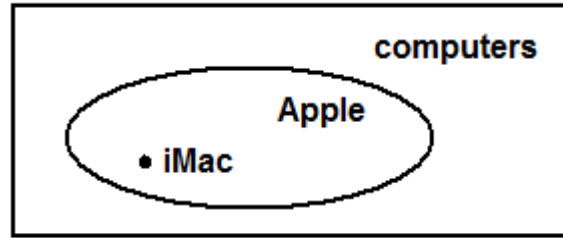


FIGURE FOR "2B"



1C Find the value of the following:  $178 + 184 + 190 + \dots + 8656 + 8662$

2A Write the converse, contrapositive, and inverse of:

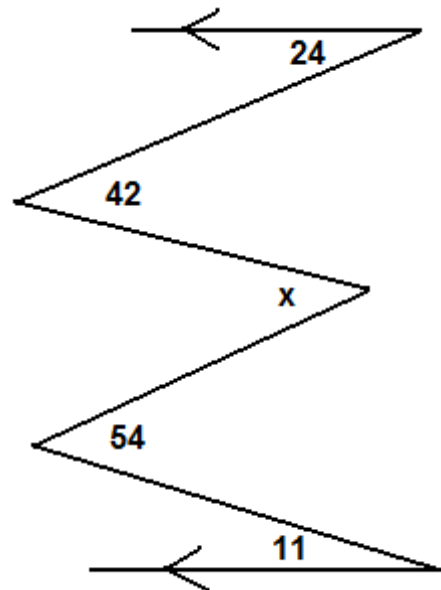
"All math tests are fun."

2B Write a logical syllogism for the following:  
(see image on the right)

3A Explain what the rule  $T(x,y) = (-x + 6, y - 7)$  does to a figure in the coordinate plane.

3B Solve for  $x$  in the figure on the right.

3C Solve for the indicated items.



	m	n	
	1	16	13
	4	15	14
p			5
	11	2	7
	12	3	8
q			9
			10

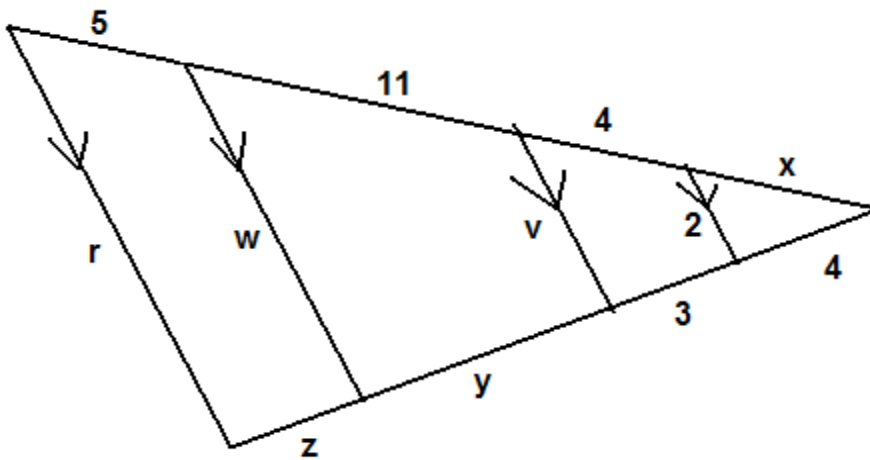
$$\begin{aligned}
 m < 1 &= 2x + 16y + 5 \\
 m < 6 &= -8x + 11y + 1 \\
 m < 10 &= -5x + 5y + 47 \\
 m < 12 &= -12x + 4y + 24 \\
 m < 14 &= 18x + 29y - 1 \\
 m < 15 &= 10x + 10y + 69
 \end{aligned}$$

$$x = \underline{\hspace{2cm}}$$

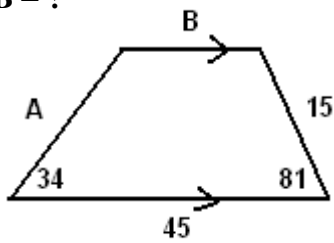
$$y = \underline{\hspace{2cm}}$$

Which lines  
(if any)  
are parallel?

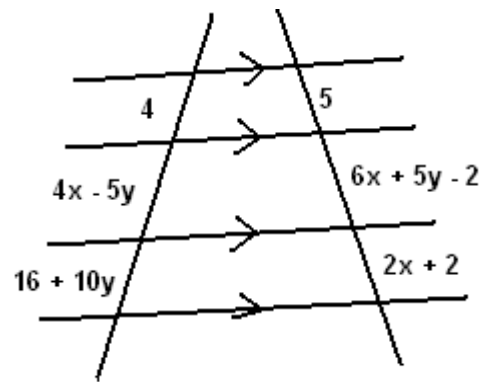
5A Solve for the values of the variables.



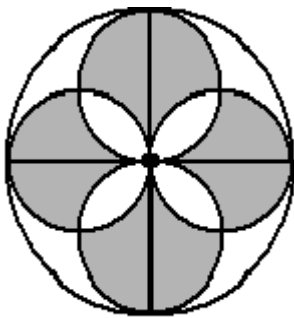
5B  $A = ?$   $B = ?$



5C Solve for  $x$  and  $y$



6A EXACT Shaded Area = ??  
Area of big circle:  $324\pi$



7A

6B What is the measure of the hands of a clock at 4:27 PM?

6C A regular 17-gon has a circumscribed circle with area 2010. What is the amount of area between the 17-gon and circle?

7A Find the surface area of the right regular hexagonal pyramid.

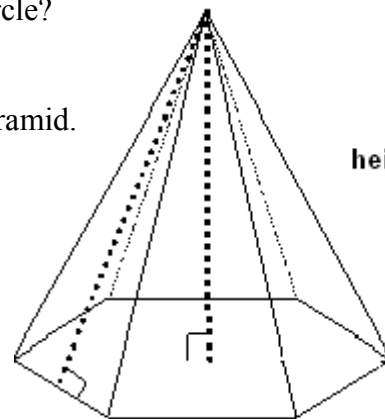
7B

diameter = 8 feet  
water depth = 6 feet



Volume = ?

24 feet



height = 18 in

7 in