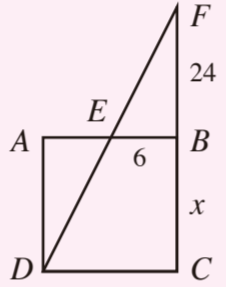
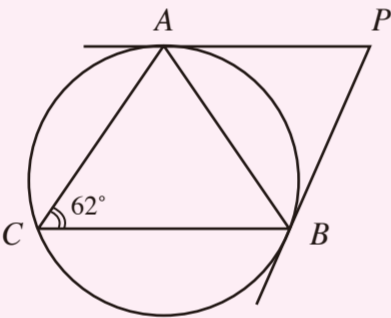
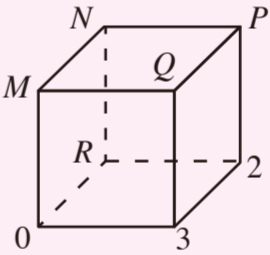
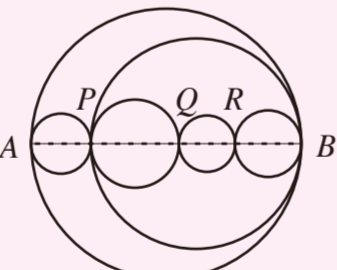
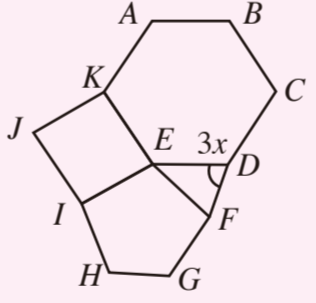
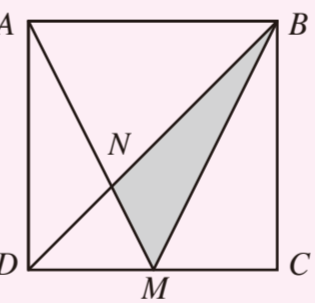
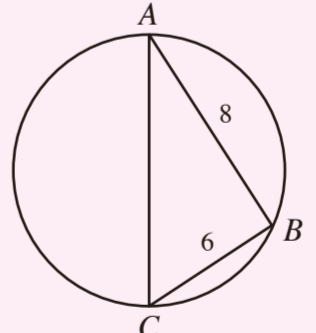
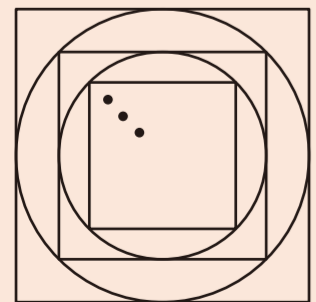
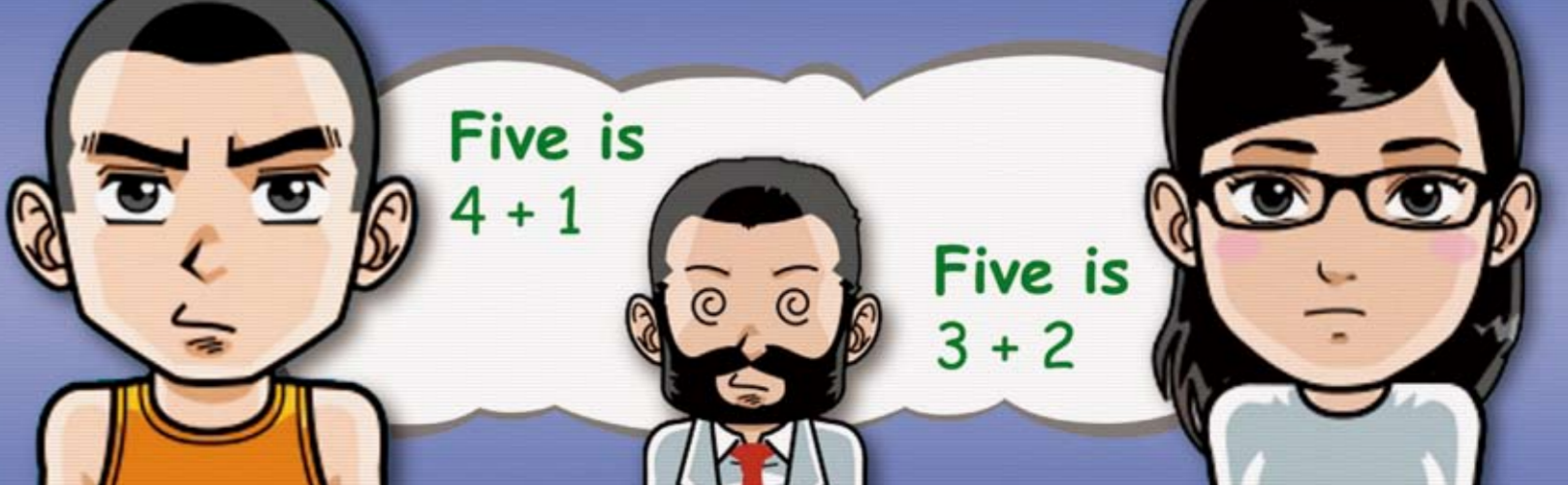


SUN 日	MON 一	TUE 二	WED 三	THU 四	FRI 五	SAT 六	
FEB 二月 2011	Five is...						
			If $u + \frac{1}{u} = 1$, find the value of $\left u^{2048} + \frac{1}{u^{2048}} \right $.	Find $1 + \sum_{n=2}^{\infty} \frac{1}{1+2+3+\dots+n}$.	If three sides of a triangle, namely a, b and c , are integers satisfying $abc + ab + bc + ac + a + b + c = 7$, find the perimeter of this triangle.	If $x < 0 < y$, simplify $\ x - y - 1 - y - x + 5 \ $.	Find $k > 0$ if the equation $ x + 2 - x - 3 = k$ has infinitely many solutions.
	1 廿九	2 除夕	3 正月初一	4 初二	5 初三		
	If a cube is cut by a plane, the cross section is a polygon. What is the maximum number of sides of the polygon?	$ABCD$ is a cyclic quadrilateral such that $AB = 3, BC = 5$ and $\angle ADC = 60^\circ$. Find the length of AC .	In the figure, if $ABCD$ is a square, find x . 	If m and n are real numbers and $m^2 + mn + n^2 = 3$, find the greatest value of $m^2 - mn + n^2$.	Find $(3^{2011} + 7^{2011}) \bmod 11$.	Find the remainder when 5^{20} is divided by 14.	If the sequence of positive real number $\{x_n\}$ is convergent with $x_{n+1} = \frac{144}{x_n}$ for all $n \geq 1$, what is x_2 ?
	6 初四	7 初五	8 初六	9 初七	10 初八	11 初九	12 初十
Find x if $0.07692\dot{3} = \frac{1}{x}$.	In the diagram, AP and BP are tangents to the circle at A and B respectively. If $\angle ACB = 62^\circ$, find the value of $\frac{\angle APB}{4}$. 	Birthday of Galileo Galilei . Using his own pulse as a timer, Galileo discovered the pendulum isochronisms in 1581. He found that all bodies fall with the same acceleration and declared mechanical laws valid for all observers in uniform motion. He made the first telescopic observations.	點 O 為 $\triangle ABC$ 的外心，而 $\triangle ABC$ 是一個等邊三角形。若 $\triangle ABC$ 的外接圓的半徑為 3，求 $\triangle ABC$ 的周界 (答案準確至整數)。	How many rational terms are there in the binomial expansion of $(\sqrt{2} + \sqrt[3]{3})^{100}$?	In the diagram, each of the numbers 0, 1, 2, 3, 4, 5, 6, and 7 is used to label a vertex of the cube. The numbers 0, 2 and 3 are placed as shown. The sum of the numbers at the ends of each edge must be a prime number. (Note: 1 is not a prime number.) Find the value of $M + N + P + Q$. 	Three boys Kelvin, Derek and Rambo sat for an exam. Assume they finished the exam in constant speed. When Kelvin finished the exam, Derek did 90% of the exam. When Derek finished the exam, Rambo did 90% of the exam. How many % did Rambo leave when Kelvin finished the exam?	
13 十一	14 十二	15 十三	16 十四	17 十五	18 十六	19 雨水	
How many different circles can be drawn, each of which passes through 3 of 6 points A, B, C, D, E, F with no three of the points are collinear and no four concyclic?	Find $\frac{k}{10}$ where k is the number of non-negative integral solution of $x_1 + x_2 + x_3 + x_4 \leq 6$.	The diagram shows different routes from A to B formed by 6 tangential circles. If AB is a diameter of the largest circle, find the number of different shortest paths from A to B . 	$ABCDEK$ is a regular hexagon, $EFGHI$ is a regular pentagon while EJK is a square. If $\angle EDF = 3x$, find x . 	$ABCD$ is a square, $AB = 12$ units and M is the mid-point of CD . Find the area of the shaded region. 	$\triangle ABC$ is a right-angled triangle inscribed in a circle, if the area of the circle is $y\pi \text{ cm}^2$, what is the value of y ? 	若 $(2x + \sqrt{3})^4 = a_0 + a_1x + a_2x^2 + a_3x^3 + a_4x^4$, 求 $26[(a_0 + a_2 + a_4)^2 - (a_1 + a_3)^2]$ 的值。	
20 十八	21 十九	22 二十	23 廿一	24 廿二	25 廿三	26 廿四	
In the diagram, the length of each side of the largest square is 2. If the drawing process is repeated infinitely, find the sum of perimeters of all squares (to the nearest integer). 	Find the number of positive integral solutions of the Diophantine equation $x + y + z = 9$.	<p>Little Boy: "My math teacher is crazy." Mother: "Why?" Little Boy: "Yesterday he told us that five is $4 + 1$; Today he is telling us that five is $3 + 2$."</p>					
27 廿五	28 廿六						

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