



ข้อสอบแข่งขัน

MATH ENG ครั้งที่ 3 / 2560

ระดับชั้นประถมศึกษาปีที่ 6

สอบวันเสาร์ที่ 21 ตุลาคม พ.ศ. 2560

ประกาศผลทาง www.riprn-math.com และ www.facebook.com/riprnmath

วันจันทร์ที่ 13 พฤศจิกายน พ.ศ. 2560

รับรางวัล วันเสาร์ที่ 16 ธันวาคม พ.ศ. 2560

ณ หอประชุมพิมานศาวร เวลา 9.30 - 11.30 น.

คำชี้แจง : ทำข้อสอบเวลา 12.30 - 14.30 น. โดยเขียนคำตอบในกระดาษเขียนตอบ
ทศในตัวข้อสอบ และนำข้อสอบกลับบ้านได้



If $A \star B = (A - B)!$, find $\frac{8 \star 2}{10 \star 6}$

$(n! = 1 \times 2 \times 3 \times \dots \times n)$



There are 58 oranges and mangoes, 46 oranges and apples,
and 62 apples and mangoes. Find the number of fruit for each type.

3

Jim buys two erasers and three pens for 50 baht. Jack buys four erasers and five pens for 88 baht. How much is one pen?

4

Nan has 449 stamps.

A big album can contain a maximum number of 45 stamps.

A small album can contain a maximum number of 28 stamps.

How many albums required if Nan wants to keep all stamps to the albums in full?

5

The different ages of three children in the Beans family add up to 15. If their ages are multiplied together, the result is 60.

What is the age of the youngest child?

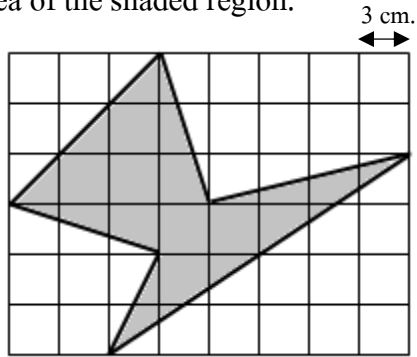
6

A tank is $\frac{3}{8}$ full. When 330 litres of water are added to the tank, it is then $\frac{5}{6}$ full. How many additional litres of water are required to fill the tank?

7

The side of each square grid is 3 cm.

Find the area of the shaded region.



8

A	B	C	D	E	F	G	H	I	J
1	2		3		4	5		6	
13	12	11		10		9	8		7
14	15		16		17	18		19	
26	25	24		23		22	21		20
27	28		29		30	31		32	...

In which column is number 2045?

9

The average of weight of eight students is 72 kg.

When a student joins in the group so that the average of weight of nine students is 75 kg. What is the mass of the last student?

10

Find the values of the ones digit of $2^{2013} + 3^{1998} + 7^{3123}$

11

Nan has 480 stamps. She gave one - fifth to Jim,
sold one - quarter of what was left and gave the rest to Joy.
How many stamps did Joy receive?

12

Kim thinks of a two - digit number. John reverses the digits
and when the two numbers are added the total is 110.
How many different numbers could Kim have thought of.

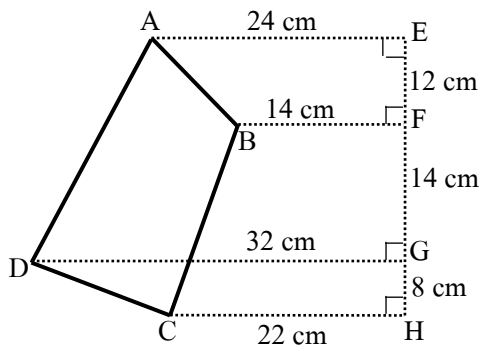
13

Cindy has 4 black and 4 white cubes of equal size. In how many
different ways can it be put together to form a $2 \times 2 \times 2$ cube?
(Two cubes are not considered different if it can rotated to look the same.)

14

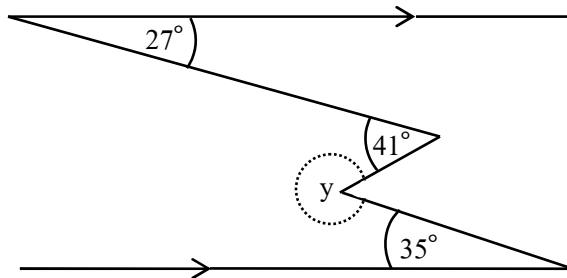
The areas of three faces of a rectangular prism are 48 cm^2 , 72 cm^2 and 96 cm^2 . What is the volume of the rectangular prism?

15



What is the area of quadrilateral ABCD?

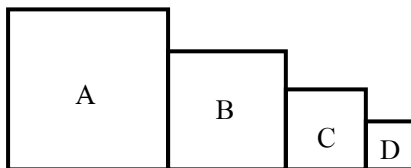
16



What is the value of $\angle y$?

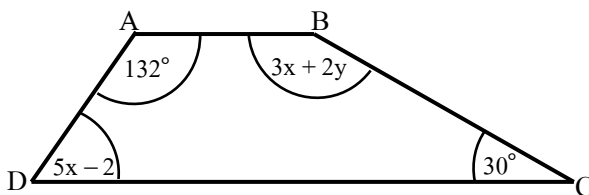
17

The sum of the areas of the four squares A , B , C and D, is 139 cm^3 . What is the perimeter of the figure?



18

ABCD is a trapezoid.



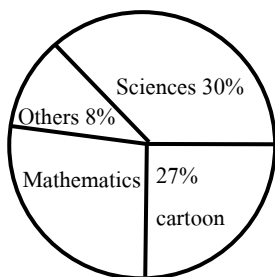
Find the values of $x + y$.

19

Evaluate $\frac{1}{5} + \frac{1}{45} + \frac{1}{117} + \frac{1}{221}$.

20

The pie chart shows the percentage of books in a library.
If there are 210 mathematics books in the library, how many science books are there?



21

Pong has one - third as many pieces of candy as James.
James has half as many as Cindy.
Cindy has 8 times as many as Sue.
Sue has 6 pieces of candy. How many pieces of candy do Pong ,
James , Cindy and Sue have altogether?

22

Find the sum of all counting numbers less than 40 which are not divisible by 2 or 3.

23

In a group of 42 primary school students, 16 take English, 19 take French and 7 take both languages.
How many students of the group take neither English nor French?

24

When Ann, Ben and Cindy compared the amount of money each had, they discovered that Ann and Ben together had 282 baht, Ben and Cindy together had 276 baht, and Ann and Cindy together had 264 baht. Who had the least amount of money and how much was it?

25

In a Mathematics contest of 40 problems, 5 points were give for each correct answer and 3 points were deducted for each incorrect answer. If Kim answered all 40 problems and scored 128 points, how many correct answers did he have?

26

A box contains the 300 same size beads, but in 10 different colours. Suppose there are 30 beads of each colour and I am blindfolded. What is the fewest number of beads I must pick to be absolutely sure there are 10 beads of the same colour among the beads I have picked blindfolded?

27

A restaurant has a total of 40 tables with are of two types. The first type seats 2 people at each table, the second type seats 4 people at each table. A total of 102 people are seated when all seats are occupied. How many tables for 4 people are there?

28

If I start with the number 8 and count by 6s, the following sequence is obtained : 8 , 14 , 20 , 26 , 32 , ... and so forth. A new sequence is formed when I start with a different number and count by a different number. Suppose the 4th number of the new sequence is 31 and the 9th number is 66. What is the 20th number of the new sequence?

29

There are twice as many litres of water in big container as in small container. If 12 litres of water are removed from each of two containers, there will be 5 times as many litres of water in one container as in the other. How many litres of water did the big container have at first?

30

Three water pipes are used to fill a swimming pool. The first pipe alone takes 48 minutes to fill the pool, the second pipe alone takes 16 minutes to fill the pool, and the third pipe alone takes 24 minutes to fill the pool. If all three pipes are opened at the same time, how long will it take to fill the pool?