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We are delighted to bring to you this issue of ALU Mathematics News, a monthly newsletter dedicated to the emerging field of Mathematics. This is the first visible —output from the Department of Mathematics, Alagappa University. We are committed to make ALU Mathematics News a continuing and effective vehicle to promote communication, education and networking, as well as stimulate sharing of research, innovations and technological developments in the field. However, we would appreciate your feedback regarding how we could improve this publication and enhance its value to the community. We are keen that this publication eventually grows beyond being a mere —news letter to become an invaluable information resource for the entire Mathematics community, and look forward to your inputs to assist us in this endeavor.

Dr. N. Anbazhagan

MATHEMATICS

Mathematics is the study of topics such as quantity, structure, space, and change. There is a range of views among mathematicians and philosophers as to the exact scope and definition of mathematics. When mathematical structures are good models of real phenomena, then mathematical reasoning can provide insight or predictions about nature. Through the use of abstraction and logic, mathematics developed from counting, calculation, measurement, and the systematic study of the shapes and motions of physical objects.

SYMBOLS MAKES PICTURE

tho;f;if fzpjk;

tho;f;if xU fzpjk; ...!

,jpy; Njitfis $l;lpdhy;
Kaw;rpfs; jhNd ngUFk; !
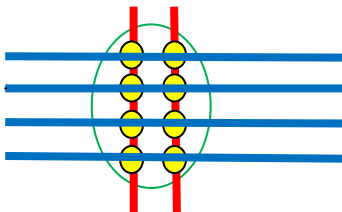Kaw;rpfis $l;lpdhy;
mDgtq;fs; jhNd ngUFk; !

njspthd ghijia tFj;J tpl;lhy;
Ntz;lhjit jhNd fopfpd;wd !

fw;f Ntz;lpait kl;Lk;
tho;f;ifapy; mjpfk;

gpwh; Kaw;rpia fld; thq;fp
jdJ cwf;fj;ij fopg;gJk;
rKjha gugug;Gfis rhjfkhf;Fk;
jrk];jhdq;fSk; fw;W tpl;lhy;
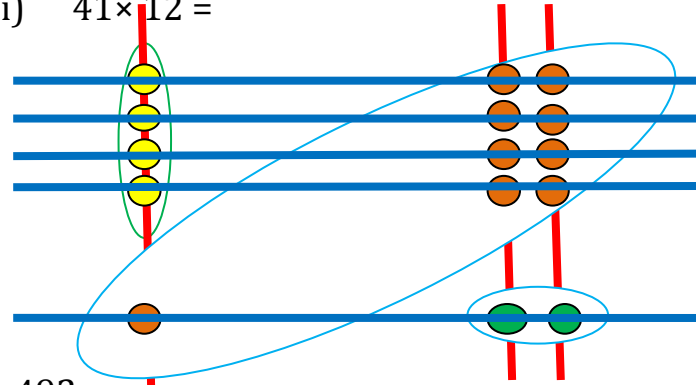tho;f;if fzpjj;jpw;F
tpil jhNd fpilj;J tpLk; !

EASY MULTIPLICATION

(i)   4 × 2 =

Ans : 8

(ii)   41× 12 =

Ans : 492

SYMBOLS MAKES TREE

Foe;ij [ddkhFk; khjq;fs;

  gj;jhf ,Uf;fl;Lk;

Nfhtpypypy; fpufq;fs;

  Xd;gjhf ,Uf;fl;Lk;

tuk; jUk; yl;Rkpfs;

2

vl;lhf ,Uf;fl;Lk;

thuj;jpy; ehl;fs;

Vohf ,Uf;fl;Lk;

mUs;KUfd; giltPL

Mwhf ,Uf;fl;Lk;

mfpyj;jpy; G+jq;fs;

Ie;jhf ,Uf;fl;Lk;

rJuj;jpd; gf;fq;fs;

ehd;fhf ,Uf;fl;Lk;

rq;fj; jkpo;fs;

%d;whf ,Uf;fl;Lk;

G+kpf;Fj; JUtq;fs;

,uz;lhf ,Uf;fl;Lk;

kf;fspd; vz;zq;fs;

xd;whf ,Uf;fl;Lk;

NghH kl;Lk; ,t;Tyfpy;

G+[;[pahka; ,Uf;fl;Lk;

nghq;Ffpw md;G kl;Lk;

vz;zpw;W ,Uf;fl;Lk;.

THE GREATEST THINGS

$37037 \times 3 = 111111$
$37037 \times 6 = 222222$
$37037 \times 9 = 333333$
$37037 \times 12 = 444444$

$37037 \times 15 = 555555$
$37037 \times 18 = 666666$
$37037 \times 21 = 777777$
$37037 \times 24 = 888888$
$37037 \times 27 = 999999$

WONDER IN MATHS

$12345679 \times 9 = 111111111$
$12345679 \times 18 = 222222222$
$12345679 \times 27 = 333333333$
$12345679 \times 36 = 444444444$
$12345679 \times 45 = 555555555$
$12345679 \times 54 = 666666666$
$12345679 \times 63 = 777777777$
$12345679 \times 72 = 888888888$
$12345679 \times 81 = 999999999$

kdf; fzf;F

fhy;FNyl;liuAk; Njlf; $lhJ. fhfpjj;jppYk;
nra;J ghh;f;ff; $lhJ.
kdjpw;Fs; $l;L Kaw;rp nra;aTk;.
 1. cq;fsplk; 1000 &gha; cs;sJ.
 2. mjDld; 40 &gha; $l;lTk;.
 3. ,d;ndhU 1000 &gha; $l;lTk;.
 4. mjDld; 30 &gha; $l;lTk;.
 5. kPz;Lk; xU 1000 &gha; $l;lTk;.
 6. mjDld; 20 &gha; $l;lTk;.
 7. kPz;Lk; xU 1000 &gha; $l;lTk;.
filrpahf xU 10 &gha; $l;;lpdhy; vd;d
tUk;?

Ans: 5000 te;jhy; jtW. rupahd tpil
4100.

FUNNY MATHS

  24-1=24….!?

24 pieces total chocolate :

Cut the chocolate as shown below:

Divide the chocolate as shown below:

Replace the chocolate as shown below:

Now join the separate pieces, you will have 24 pieces and an extra one piece :

(i)   37 × 3 = 111
         37 × 6 = 222
         37 × 9 = 333
         37 × 12 = 444
         37 × 15 = 555
         37 × 18 = 666
         37 × 21 = 777
         37 × 24 = 888
         37 × 27 = 999

(ii) 15873 × 7 = 111111
    15873 × 14 = 222222
    15873 × 21 = 333333
    15873 × 28 = 444444
    15873 × 35 = 555555
    15873 × 42 = 666666
    15873 × 49 = 777777
    15873 × 56 = 888888
    15873 × 63 = 999999
    15873 × 70 = 1111110

(iii) 123456789 × 9 ×1 = 111111111
    123456789 × 9 × 2 = 222222222

4

123456789 × 9 ×3 = 333333333
123456789 × 9 × 4 = 444444444
123456789 × 9 × 5 = 555555555

WHO AM I

If it is a 9 letter word 123456789.
Solve if you can ?
It is a 9 letter word 123456789
If you lose it you die,
If you have 234, you can 1234
56 is one type of disease, 89
indicates exact location and time, 2
&7 are same letter and 3 & 8 are
same letters & 3 & 8 are same letters.
5 & 9 are same letters.

Guess the word ? ? ?
It's a challenge for all masterminds !
Ans :

   HEART BEAT.

FUNNY MULTIPLICATION

123456789 × 9 = 1111111101
123456789 × 18 = 2222222202
123456789 × 27 = 3333333303
123456789 × 36 = 4444444404
123456789 × 45 = 5555555505
123456789 × 54 = 6666666606
123456789 × 63 = 7777777707
123456789 × 72 = 8888888808
123456789 × 81 = 9999999909

CALENDER

What was the day of the week on 16th July, 1776 ?

Solution 16th July, 1776 = (1775 years + period from 1.1.1776 to 1.7.1776) Number of odd days in 1600 Years= 0Number of odd days in 100 Years= 5 75 Years = 18 leap Years + 57 ordinary Years = (18 ×2 + 57×1) odd days = 93 odd days1775 Years have = (0+5+2) odd days = 7 odd days = 0 odd days January, February, March, April, May, Jun, July(31 + 29 +31+ 30 +31+30 +16) = 198 days

198 days = (28 weeks + 2 days) = 2 odd days
Total numbers of odd days = (0 + 2) = 2
 Hence the required day is Tuesday.
Ans : Tuesday

PUZZLES WITH IMAGES

1) There is a figure below (a rectangle). You can see different colors depicting different regions of the figure. The labels on the top of a region defines the area of that region.

Can you find the area of the green shaded region labelled with a question mark?
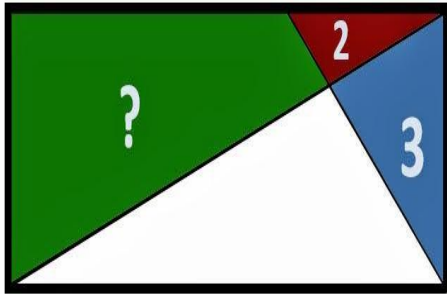
Solution

This problem can be solved with similar triangles property.
The White triangle is similar to the Red oneNow Ratio of sides is 2:3 (as ratio of areas = ratio of based if the height is same)Seeking that, White triangle = 9/4 * Yellow triangle = 9/2 Following all the above, the Green region = 5.5 units

2) Can you find the correct number which should replace the question mark in the picture below
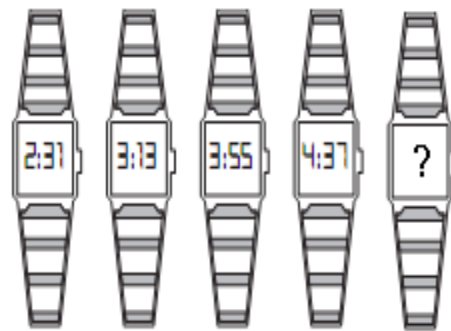

Solution- 3

3) Can you solve the maths puzzle by replace the question mark with the correct number ?

Solution- 8

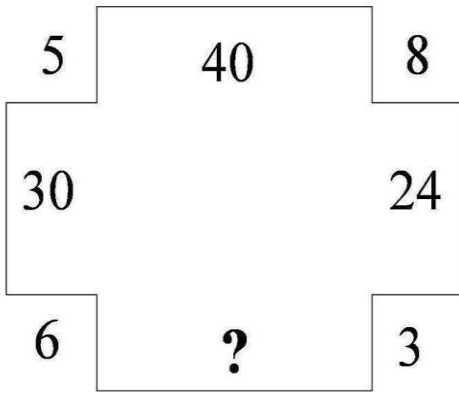4) Based on previous watches, what time should the last watch show ?

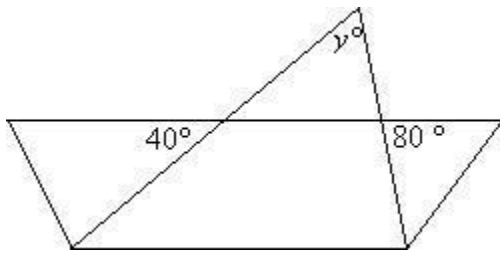What time should the last watch show?

Solution- 5:19

Starting with the watch on the left, add 42 minutes to the time shown to give the time on the next watch to the right

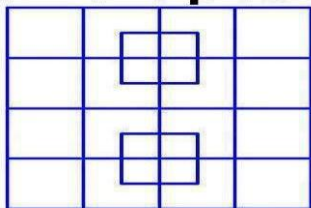5) Can you replace the "?" mark with the correct number ?

Solution- 18

8) Which number should replace the question mark in the picture below ?

Solution: 4

6) In the picture below, can you identify the value of angle 'Y'

6*3 equals 18
7*9 equals 63
6*4 equals 24
7*6 equals 42, ? should be replaced by 4.

Solution- 60

9) Which number should replace the question mark In The Circle Below ?
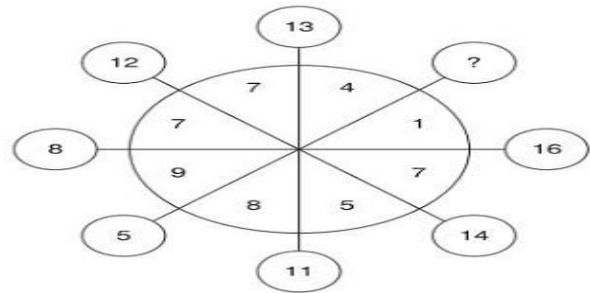
7) How many squares are there in the following figure ?

How many squares are in this picture?

92% FAIL this simple test!

Solution- 17

It is the sum of the two digits(9 + 8) in opposite quadrant.

10) A 12-year footballer Lavy was offered a contract with a club name "Flyball" that if he will practice 1 hour extra after school he will be offered 11$ after every week.Lavy, however, suggested an alternative paid method in which He will be paid just a penny on his first day. Two pence will be paid on the second day, Four pence will be paid on the third day.And so on till 11th day. Should the club accept the offer of Lavy?

Solution

Flyball should pay Lavy $11 instead of accepting his counter offer as in that case the club will end up paying

almost double the amount.

Day 1	.01
Day 2	.02
Day 3	.04
Day 4	.08
Day 5	.16
Day 6	.32
Day 7	.64
Day 8	1.28
Day 9	2.56
Day 10	5.12
Day 11	10.24

♠♠♠♠♠