Primrose Schools

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NATIONAL PRIMTALENT OLYMPIAD EXAMINATIONS

MATHEMATICS

CLASS 5	
	Name :
	Section :
	Roll no :

Guidelines for the Candidates	
1	Please check your Name, Class and Section on the OMR sheet provided to you.
2	In case, OMR sheet with your name is missing, please fill in information about yourself in the blank sheet provided before start of exam.
3	All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
4	There is only **ONE** correct answer. Choose only ONE option for an answer.
5	To mark your choice of answers by darkening the circles in OMR sheet, use **HB Pencil or Blue/Black ball point pen** only.
6	Rough work should be done in the blank space provided in the booklet.
7	Return the OMR sheet to the invigilator at the end of the exam
8	Please fill in your personal details in space on the top of this page before attempting the paper

SECTION A - LOGICAL REASONING

1) Pick the odd one in the following.

(A) 25
(B) 81
(C) 49
(D) 27

2) Which of the following will be the seventh to the right of the nineteenth when counted from right in the pattern shown below?

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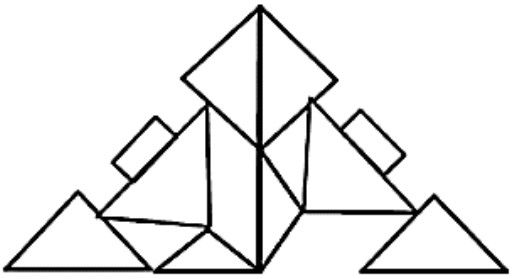
(A) 0
(B) ^
(C) /
(D) \

3) Find how many triangles are there in the given figure.



(A) 8
(B) 10
(C) 7
(D) 11

4) The green ribbon is longer than the yellow ribbon but shorter than the blue ribbon. Blue ribbon is shorter than pink ribbon. Which ribbon is the longest?

(A) Green
(B) Yellow
(C) Blue
(D) Pink

5) If
4+4 = 20
5+5 = 30
6+6 = 42
7+7 = 56
What is 9+9?

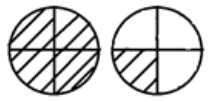
(A) 63
(B) 54
(C) 72
(D) 90

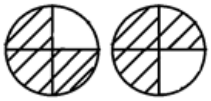
SECTION B - EVERYDAY MATHEMATICS

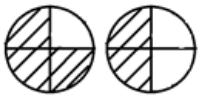
6) Trisha had 750 coins in a jar. She sorted the coins into 50 different stacks. Each stack had the same number of coins. How many coins were in each stack?

(A) 10
(B) 15
(C) 20
(D) 25

7) Which of the following shows a fraction of $\frac{5}{4}$?

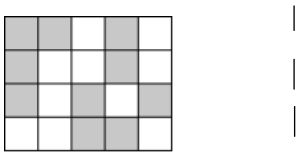
(A) 

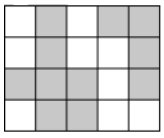
(B) 

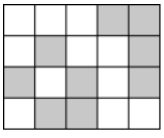
(C) 

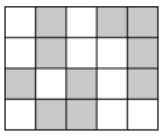
(D) Both (A) and (C)

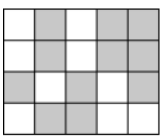
8) Which of the following shows the reflection of the image over the dotted line?



(A) 

(B) 

(C) 

(D) 

9) In a given number, if you move some digit one place to the left, then the place value of the digit changes by a factor of _____

(A) 1

(C) $\frac{1}{10}$

(B) 10

(D) 0

10) A restaurant purchased 51 boxes of ketchup packets. Each box contained 768 packets of ketchup. About how many ketchup packets in total did the restaurant purchase? Choose the better estimate.

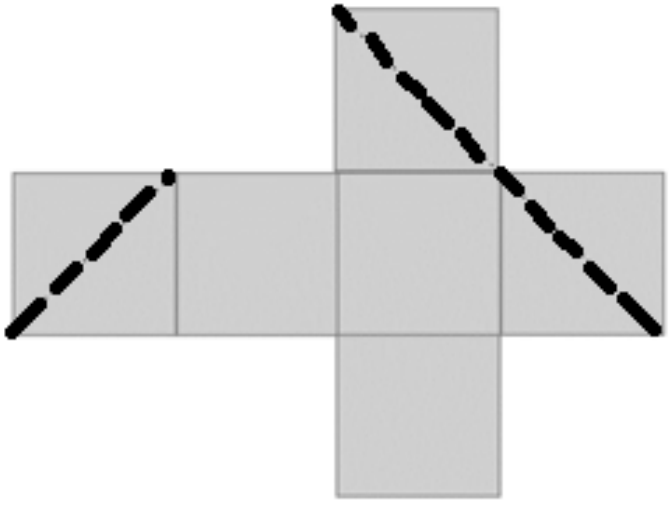
(A) 35000

(C) 40000

(B) 4000

(D) 42000

11) A section was made on a cube. On the net of the cube the section made was indicated with perforated lines as shown in the figure. What shape was made by the section?



(A) Equilateral triangle

(C) Isosceles triangle

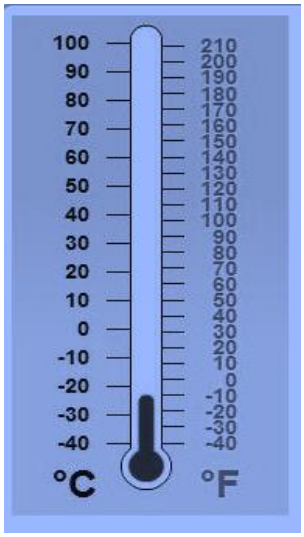
(B) Right angled triangle

(D) Both (B) and (C)

12) The difference between the two numbers is 719198. The smaller number is 5629726. Find the larger one.

(A) 63,48,942
(B) 63,48,924
(C) 4910528
(D) 4910582

13) The temperature shown in degrees Fahrenheit (°F) in the diagram is about

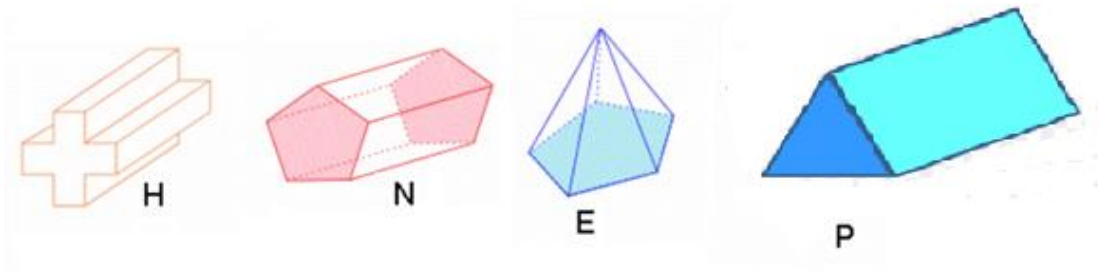


(A) -10°C
(B) -25°F
(C) -10°F
(D) -25°C

14) Estimate this answer:
Melanie bought a new phone for Rs.1,209. She will pay it off in 39 equal payments.
How much is each payment?

(A) Rs. 30
(B) Rs. 50
(C) Rs. 40
(D) Rs. 60

15) Which solid does not have a rectangular face?

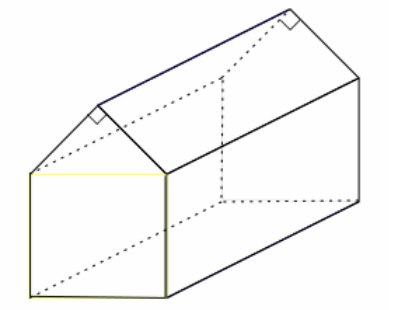


(A) Figure H
(B) Figure E
(C) Figure N
(D) Figure P

16) A baker is putting cupcakes on trays to cool. She put 8 cupcakes on the first tray, 16 cupcakes on the second tray, 24 cupcakes on the third tray, and so on. If this pattern continues, how many cupcakes will the baker put on the sixth tray?

(A) 36
(B) 32
(C) 48
(D) 42

17) The diagram shows a solid called a pentagonal prism. Houses are sometimes approximately this shape:



How many vertices (corners) does the solid have?

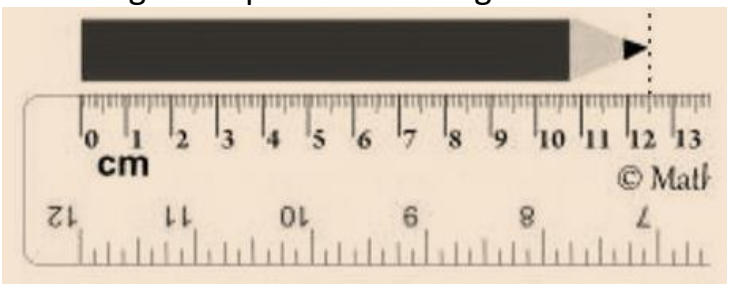
(A) 12
(B) 9
(C) 8
(D) 10

18) Sort the following fractions in ascending order.

$\frac{2}{4}, \frac{3}{9}, \frac{2}{3}, \frac{3}{1}$

(A) $\frac{2}{4}, \frac{2}{3}, \frac{3}{1}, \frac{3}{9}$
(B) $\frac{2}{4}, \frac{3}{1}, \frac{2}{3}, \frac{3}{9}$
(C) $\frac{3}{9}, \frac{2}{4}, \frac{2}{3}, \frac{3}{1}$
(D) $\frac{3}{9}, \frac{2}{3}, \frac{2}{4}, \frac{3}{1}$

19) How long is the pencil according to the ruler?



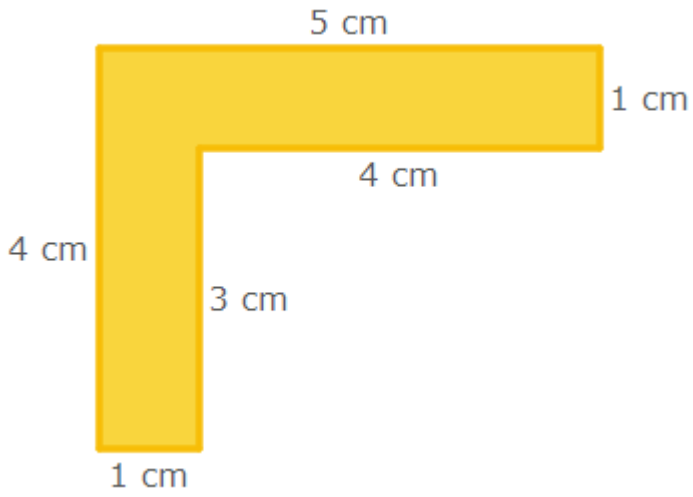
(A) 12.5 cm
(B) 12 cm
(C) 12.3 cm
(D) 12.1 cm

20) See the price list below and find how much money does Seeta needs to buy 20 chocolates and 35 donuts?

ITEMS	PRICE PER UNIT
Chocolate	₹10
Butterscotch ice-cream	₹30
Donut	₹15
Cake	₹25

(A) ₹ 525
(B) ₹ 725
(C) ₹625
(D) ₹825

21) What is the perimeter of the given shape?

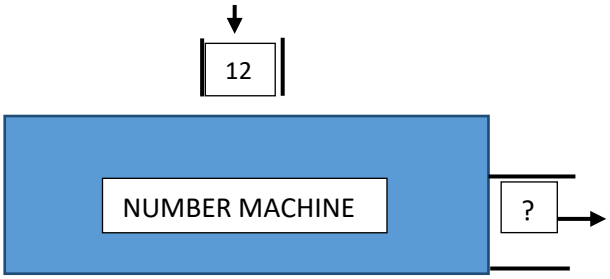


(A) 20 cm
(B) 15 cm
(C) 14 cm
(D) 18 cm

22) Raghu left home at 7:30 a.m. and reached school by 8:00 a.m. He took an auto from school by 3:30 p.m and reached home at 4:00 p.m. How long was Raghu away from his home?

(A) 8 hours
(B) 8 hours 30 minutes
(C) 7 hours 30 minutes
(D) 3 hours 30 minutes

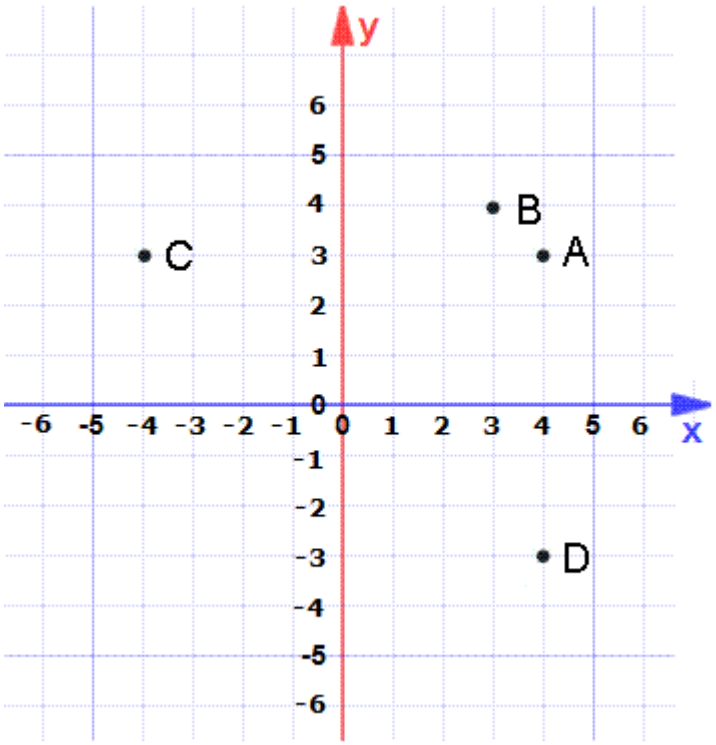
23) When a number is put into the machine below, a different number comes out. If 3 goes in, 21 comes out. If 8 goes in 56 comes out and so on. What number will come out if we put 12 into the machine?



(A) 84
(B) 64
(C) 72
(D) 91

24) How many seconds are there in 33 minutes and 20 seconds?
(A) 1980 seconds
(B) 2000 seconds
(C) 20 seconds
(D) 1900 seconds

25) Which among the four points has co-ordinates (3,4)?



(A) B
(B) D
(C) C
(D) A

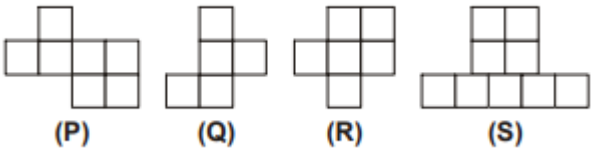
26) If CXLI, CXL, CLX, CXLII are arranged in the ascending order, then the first number in the sequence is ____

(A) CXL
(B) CLX
(C) CXLI
(D) CXLII

27) Uncle George sold 17950 muffins last week. Express this value to the nearest hundred.

(A) 18000
(B) 18100
(C) 17000
(D) 17900

28) Which given figure(s) does/do not have a line of symmetry?



(A) P only
(B) R and S
(C) Q only
(D) P and Q

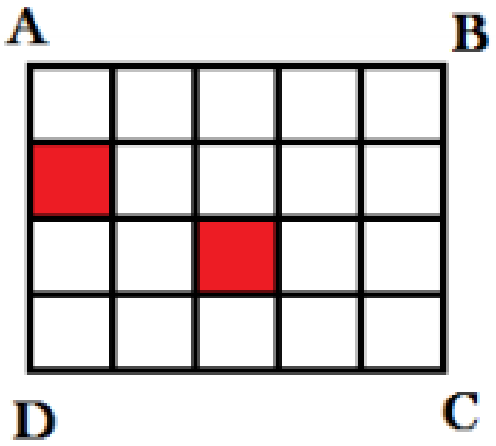
29) A car can travel 400 km on 40 litres of petrol. How far can the car travel if it has 50 litres of petrol in its petrol tank?
(A) 450 km
(B) 550 km
(C) 500 km
(D) 600 km

30) There are 1482 curtains made each hour in a factory. What is the total number of curtains made in 16 hours?
(A) 12372
(B) 21372
(C) 23712
(D) 23172

31) What is the smallest 4 digit number using the digits 7, 3 and 0 with 3 reapeated twice?

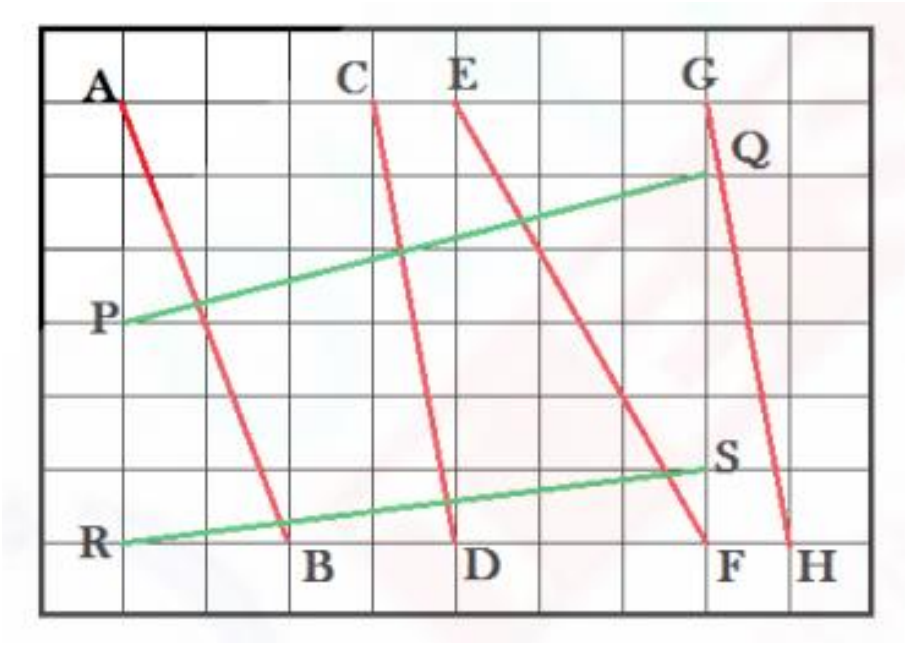
(A) 3307
(B) 3370
(C) 3037
(D) 3073

32 Rectangle ABCD shown below is divided into 20 squares. How many more squares must be shaded so that $\frac{3}{4}$ of the rectangle is shaded?



(A) 13
(B) 10
(C) 12
(D) 11

33) Which two line segments in the square grid below are parallel to each other?



(A) AB and GH
(B) CD and GH
(C) EF and AB
(D) PQ and CD

34) Look at the pictograph below.

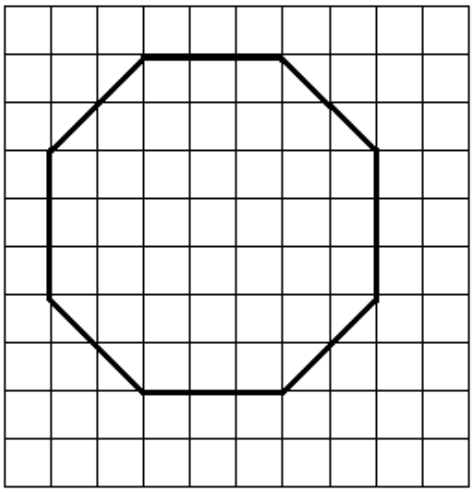
Number of people per television	
Brazil	
United Kingdom	
Venezuela	
Spain	
Japan	
Taiwan	

Each = **15** person

How many people per television are there in Venezuela?

(A) 45
(B) 50
(C) 60
(D) 90

35) Estimate the area occupied by the following figure.

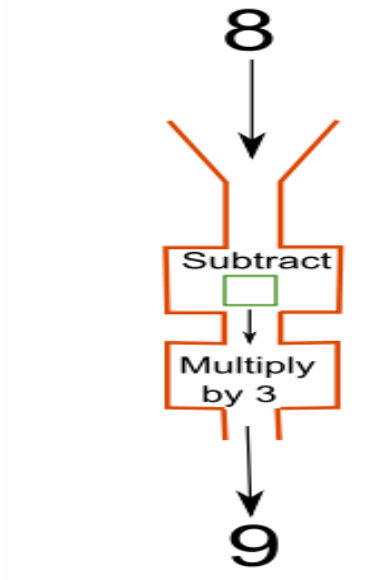


= 1 square unit

(A) 42 square units
(B) 49 square units
(C) 41 square units
(D) 40 square units

SECTION C - HIGHER ORDER THINKING

36) The input of the number machine is 8 and the output is 9. What will be the number in the green box?

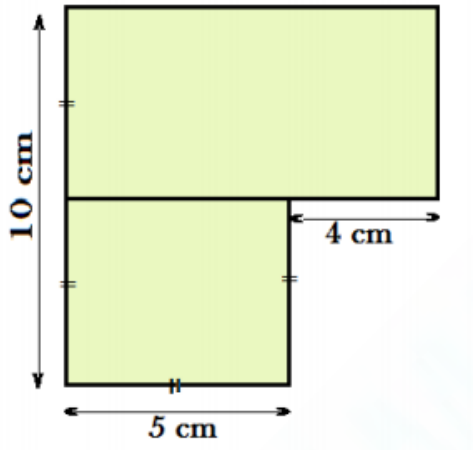


(A) 3
(B) 6
(C) 4
(D) 5

37) Sooraj threw 3 six sided dice and recorded all the numbers that he rolled. The product of the three numbers was 120 and their sum was 15. What are the numbers that he recorded?

(A) 3, 6, 6
(B) 4, 6, 5
(C) 5,5,5
(D) 6,2,5

38) The figure shown below is made up of square and rectangle. The length of each side of the square is 5 cm. Find the area of the figure.

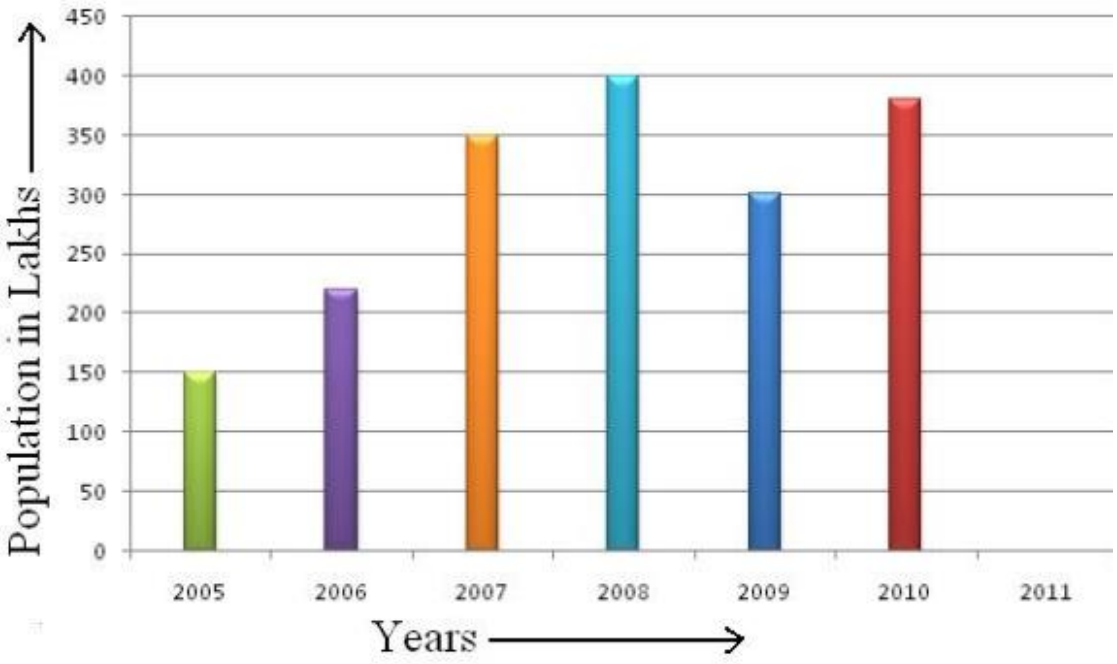


(A) 45 sq.cm
(B) 70 sq.cm
(C) 60 sq.cm
(D) 75 sq.cm

39) Sahul bought 12 pencil boxes and 4 note books. She packed them into bags of 2 pencil boxes and 1 note book. Each bag was sold at ₹ 850 and the remaining pencil boxes were sold at ₹ 260 each. How much money did she get by selling all the pencil boxes and note books.

(A) ₹ 4440
(B) ₹ 5820
(C) ₹ 5640
(D) ₹ 5480

40) The following bar graph shows the population in different years in lakhs.



How much did the population grow from 2005 to 2008?

(A) 250
(B) 200
(C) 225
(D) 300