ICATS
MATHEMATICS
CONTEST 2019

INTERNATIONAL
CATS CONTESTS
COMPETENCE & APTITUDE TESTING SERVICES
FASTEST GROWING CONTESTS IN PAKISTAN

ICATS
International CATS Contests

An Assessment Center

ICATS MATHEMATICS CONTEST 2019
JUNIORS (GRADE 5 & 6)
TIME ALLOWED : 90 MINUTES, MAXIMUM MARKS : 90
TOTAL QUESTIONS : 30 MCQS

INSTRUCTIONS

1. DON'T START ATTEMPTING THE PAPER UNTIL INSTRUCTED BY THE INVIGILATORS.

2. INSTRUCTIONS FROM THE EXAMINATION INVIGILATORS MUST BE CARRIED OUT PROMPTLY.

3. CAREFULLY RECHECK YOUR NAME, FATHER NAME, SCHOOL NAME, ADDRESS ETC AT THE BUBBLE SHEET / ANSWER SHEET.

4. RECORD ALL ANSWERS ON THE BUBBLE SHEET ONLY. SELECT BEST ANSWER FROM THE FOUR GIVEN OPTIONS AND MARK ONLY ONE OPTION IN EACH QUESTION.

5. USE BLUE / BLACK INK TO FILL UP THE CIRCLES FOR YOUR ANSWERS ON THE BUBBLE SHEET. USE OF LEAD PENCIL IS NOT ALLOWED.

6. USE OF ANY HELPING MATERIAL INCLUDING CELL PHONES AND ELECTRONIC DEVICES IS STRICTLY PROHIBITED.

7. EVERY CORRECT ANSWER EARNS THREE POINTS. THERE WOULD BE NEGATIVE MARKING. ONE POINT WOULD BE DEDUCTED FOR EVERY INCORRECT ANSWER.

8. CANDIDATES MAY NOT LEAVE THE EXAMINATION ROOM UNESCORTED FOR ANY REASON, AND THIS INCLUDES USING THE WASHROOM.

9. NO MATERIALS OR ELECTRONIC DEVICES SHALL BE BROUGHT INTO THE ROOM.

10. THERE ARE FIVE CATEGORIES OF THE CONTEST AS UNDER:

    A. TODDLERS (GRADE 1 & 2)

    B. KIDS (GRADE 3 & 4)

    C. JUNIORS (GRADE 5 & 6)

    D. JUVENILES (GRADE 7 & 8)

    E. ADOLESCENTS (GRADE 9 & 10 / O-LEVELS)

11. ONLY REGISTERED STUDENTS CAN PARTICIPATE IN THE CONTEST.

12. NO CANDIDATE SHALL TAKE OUT OF THE HALL ANY ANSWER BOOK(S) OR PART OF AN ANSWER BOOK, WHETHER USED OR UNUSED, OR OTHER SUPPLIED MATERIAL.

13. IF A PARTICIPANT DOES NOT UNDERSTAND A WORD OR PHRASE ON THE EXAM PAPER, NEITHER EXAMINER NOR INVIGILATOR IS PERMITTED TO ANSWER.

14. FOR INFORMATION ABOUT UPCOMING CONTESTS OR PROVIDING VALUABLE FEEDBACK, PLEASE VISIT WWW.CATSCONTESTS.ORG

15. ANY ACADEMIC MISCONDUCT OR MALPRACTICE MUST BE REPORTED TO INTERNATIONAL CATS CONTESTS AT INFO@CATSCONTESTS.ORG

Q1. Mark has started reading a book that has 100 pages. He has read only 5 pages of the book. What percent of the book has Mark read?

A 5%   **B** 50%   **C** 100%   **D** 105%

Q2. Annie discovered a multiplication pattern. She wrote the number sentences below to show the pattern.

$$40 \times 101 = 4{,}040$$
$$71 \times 101 = 7{,}171$$
$$59 \times 101 = 5{,}959$$
$$\boxed{} \times 101 = 2{,}828$$

What number should go in the box to complete the last number sentence?
Page

A 22   **B** 28   **C** 82   **D** 88

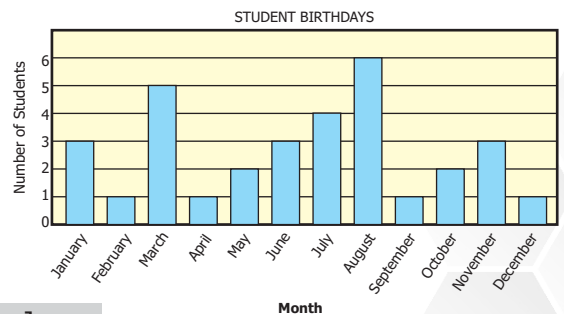**Q3.** Mr. Wright's fourth-grade class made a graph showing the number of student birthdays in each month.

Which statement about the number of student birthdays is true?

STUDENT BIRTHDAYS

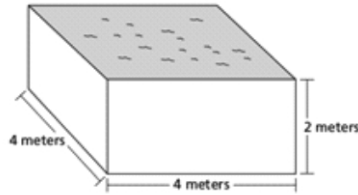**A** The most birthdays are in March.

B In July, 5 students have birthdays.

C Fewer students have birthdays in October than in June.

D More students have birthdays in June than in November.

Q4. What is the volume, in cubic meters, of the pool shown below?

A 10   **B** 16   **C** 20   **D** 32

Q5. Barbara asked her friends to guess the number of cousins she has. She gave them the following clues:

> The number is more than 5.
>
> The number is less than 15.
>
> When the number is divided by 2, the answer is an odd number.
>
> When the number is divided by 3, the answer is an even number.
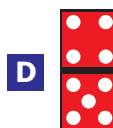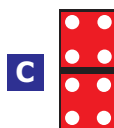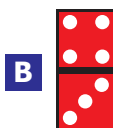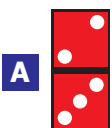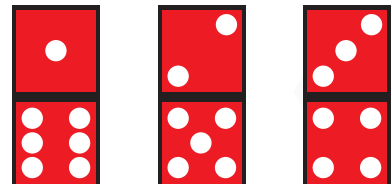
How many cousins does Barbara have?

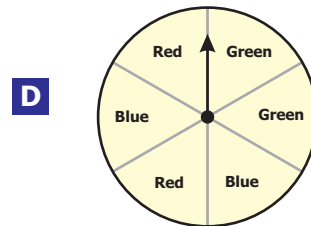**A** 6 cousins   **B** 10 cousins   **C** 12 cousins   **D** 14 cousins

---

Q6. Josie arranged her dominoes to make the pattern below.

Which domino should she put next to continue her pattern?

A   **B**   **C**   **D**

Q7. Devon, Tony, and Nate were playing a board game. Devon wins when the spinner lands on green. Nate wins when the spinner lands on blue. Tony wins when the spinner lands on red. Which spinner should be used to make the game fair?

A

Red	Green
Blue	Red
	Green

B

Red	Green
Green	Blue

C

Blue	Green
Green	Blue
Blue	Red

D

Red	Green
Blue	Green
Red	Blue
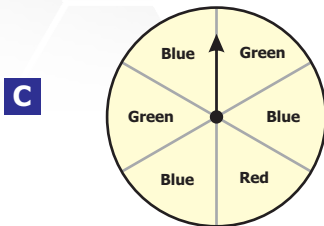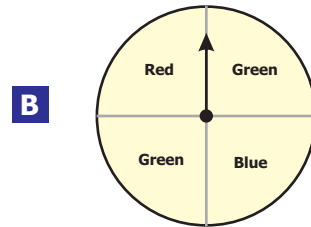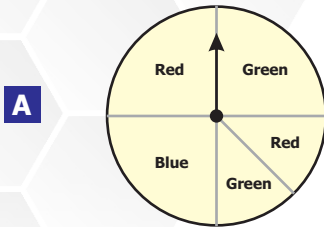
Q8. Abe, Brian, Chuck, and Dean are standing in line.

Abe and Chuck are next to each other.

Brian is last in line.

Dean is not next to either Brian or Chuck.

Which is the position of Dean.

1 2 3 4

A 1   **B** 2   **C** 3   **D** 4

Q9. If the pattern below continues, how many small squares ▭ will be in figure 5?
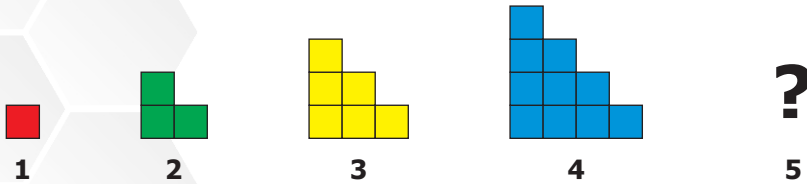
| 1 | 2 | 3 | 4 | 5 |

| **A** 13 | **B** 14 | **C** 15 | **D** 16 |

Q10. Which expression could be used to find the total number of circles shown below?
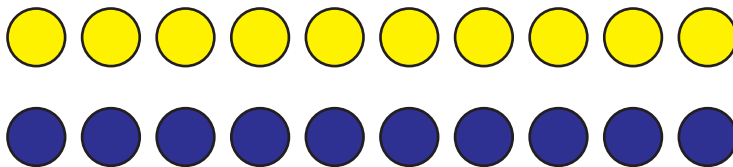
| **A** 2 + 20 | **B** 2 × 20 | **C** 2 + 10 | **D** 2 × 10 |

Q11. A store ordered 28 boxes holding 12 banana muffins each and 5 boxes holding 6 blueberry muffins each. What was the total number of muffins the store ordered?

| **A** 51 | **B** 366 | **C** 440 | **D** 10,080 |

Mr. Stone asked each of his students to name one favorite hobby. He made the picture graph shown below to display the data.

STUDENTS' FAVORITE HOBBIES

Hobby	Number of Students
Drawing	◊ ◊
Reading	◊ ◊ ◊
Sports	◊ ◊ ◊ ◊

KEY
◊ = 2 students

Which table represents the same data as the picture graph?

A

STUDENTS' FAVORITE HOBBIES

Hobby	Number of Students
Drawing	4
Reading	6
Sports	8

B

STUDENTS' FAVORITE HOBBIES

Hobby	Number of Students
Drawing	8
Reading	6
Sports	4

C

STUDENTS' FAVORITE HOBBIES

Hobby	Number of Students
Drawing	2
Reading	3
Sports	4

D

STUDENTS' FAVORITE HOBBIES

Hobby	Number of Students
Drawing	4
Reading	5
Sports	6

Q13. **Pedro left home this morning at the time shown on the clock below.**
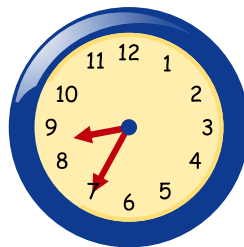
Tina left home 20 minutes after Pedro left. Carlos left home 18 minutes after Tina left. At what time approximately did Carlos leave home this morning?

A 7:57 a.m.   **B** 8:13 a.m.   **C** 8:38 a.m.   **D** 9:13 a.m.

A work crew spent four days paving a stretch of road. The table below shows the length of road paved each day.

ROAD PAVING

Day	Length (miles)
Monday	$5\frac{5}{6}$
Tuesday	$6\frac{3}{6}$
Wednesday	$8\frac{4}{6}$
Thursday	$4\frac{1}{6}$

The entire length of the road will be 27 miles. What is the total remaining length of road that needs to be paved after the four days?

A $1\frac{3}{6}$ **B** $1\frac{5}{6}$ **C** $2\frac{3}{6}$ **D** $2\frac{5}{6}$

Q15. A water tank in the shape of a right rectangular prism is 11 feet deep. The top of the water tank has an area of 220 square feet. What is the volume, in cubic feet, of the water tank?

A 20   **B** 231   **C** 1,331   **D** 2,420

Q16. Members of the Garner High School yearbook committee need to put 1,344 student photos on 24 pages in the yearbook. They want to put the same number of student photos on each page. How many student photos will they put on each page in the yearbook?

A 51   **B** 52   **C** 56   **D** 61

Q17. Min wants to make 100 name tags with ribbons attached to them. Each name tag requires five centimeters of ribbon. She has 3.25 meters of ribbon. Exactly how many more centimeters of ribbon does Min still need to make 100 name tags?

A 175   **B** 305   **C** 325   **D** 825

Q18. The Kent County Airport has three parking lots.

Lot A has 430 parking spaces.
Lot B has 150 fewer parking spaces than Lot A.
Lot C has 380 more parking spaces than Lot A.

What is the total number of parking spaces at the airport?

A 430   **B** 580   **C** 1520   **D** 1970

Q19. At a concert, 20% of the audience members were teenagers. If the number of teenagers at the concert was 360, what was the total number of audience members?

A 432   **B** 450   **C** 1,800   **D** 7,200

Q20. Michelle makes jewelry boxes containing drawers of equal size. The numbers of drawers in three different jewelry boxes and the corresponding total volumes of the drawers are shown in the table below.

JEWELRY BOXES

Number of Drawers	Total Volume (cubic inches)
2	5
3	7.5
4	10

What is the number of drawers in a jewelry box with a total volume of 17.5 cubic inches.

A 5 **B** 6 **C** 7 **D** 8

Q21. Several students voted on their favorite sports activities.

Eight students voted for basketball. Seven students voted for baseball.
Three students voted for volleyball. Four students voted for kickball.

Complete the picture graph below to show the data.

FAVORITE SPORT ACTIVITY

Activity	Number of Students
Basketball	
Volleyball	
Baseball	
Kickball	

KEY
🔴 = 2 students

Which one of the followings is the correct entry?

A Basketball 🔴🔴🔴🔴 **B** Volleyball 🔴🔴🔴
C Baseball 🔴🔴🔴🔴🔴🔴🔴 **D** Kickball 🔴🔴🔴🔴

Q22. Asif made a poster for his science project. The shaded part of the figure below shows the area of his poster.

KEY
☐ = 1 square unit
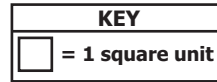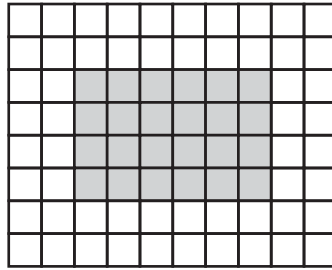
Which figure has the same area as the poster?

A — 8 units, 3 units (red rectangle)

B — 6 units, 6 units (green square)

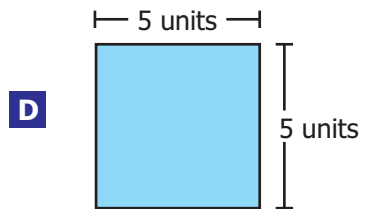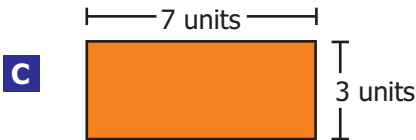**C** — 7 units, 3 units (orange rectangle)

D — 5 units, 5 units (light blue square)
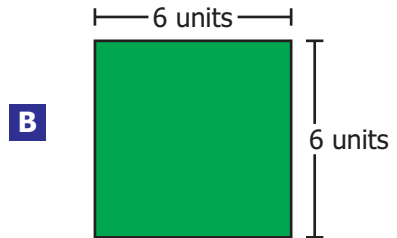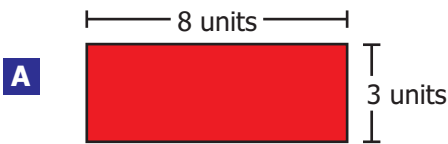
Q23. The first number in a number pattern is 28. The pattern rule is to add 14 to get the next number in the pattern. If the pattern continues, which statement is true?

A All the numbers in the pattern can be divided equally by 10.

B All the numbers in the pattern can be divided equally by 4.

C All the numbers in the pattern can be divided equally by 8.

D All the numbers in the pattern can be divided equally by 7.

Q24. There were 80 adults and 20 children at a school play. The school collected Rs.8 for each adult's ticket and Rs.3 for each child's ticket. The school donated Rs.125 of the money from tickets to a local hospital and used the remaining money to buy supplies for next year's school play.

How much money does the school have to buy supplies for next year's play?

A	Rs.475	B	Rs.575	C	Rs.675	D	Rs.775

Q25. Students voted on a name for their school softball team. The table below lists the number of votes each team received.

TEAM NAME VOTES

Name	Number of Votes
Bears	12
Comets	36
Hawks	117
Stars	39
Wolves	108

Which team name received 3 times as many votes as "Comets"?

A	Bears	B	Hawks	C	Stars	D	Wolves

Q26. The value of the digit 5 in 24,513 is how many times the value of the digit 5 in 357?
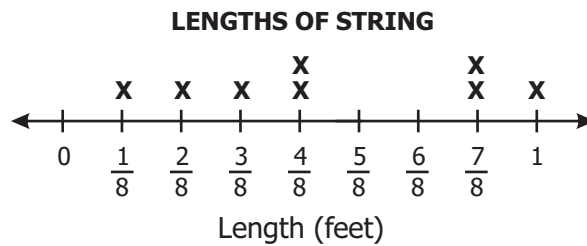
A 10   **B** 100   **C** 1,000   **D** 10,000

Q27. The line plot below shows the lengths of string Mario used for an art project.

LENGTHS OF STRING

```
                    X           X
        X   X   X   X       X   X   X
    ◄───┼───┼───┼───┼───┼───┼───┼───┼───►
        0   1   2   3   4   5   6   7   1
            ─   ─   ─   ─   ─   ─   ─
            8   8   8   8   8   8   8
```
Length (feet)

What was the total length, in feet, of string that Mario used?

A $\dfrac{25}{8}$ **B** $\dfrac{36}{8}$ **C** $\dfrac{48}{8}$ **D** $\dfrac{64}{8}$

Q28. Adam, Clara and Deena painted a tree house.

> Adam spent 2 times as many minutes painting as Clara.
> Clara spent 30 more minutes painting than Deena.
> Deena spent 45 minutes painting.

What is the total number of minutes that Adam, Clara and Deena spent painting the tree house?

A Adam 2 hours 30 minutes, Clara 1 hour 15 minutes and Deena 45 minutes

B Adam 1 hours 30 minutes, Clara 2 hour 15 minutes and Deena 45 minutes

C Adam 1 hour, Clara 30 minutes and Deena 15 minutes

D Adam 2 hours, Clara 30 minutes and Deena 15 minutes

Q29. When a certain number is divided by 4, the answer is 160 with a remainder of 2.

What is the number?

A 38   B 42   C 638   D 642

Q30. Pax wants to make fruit punch for a party using the recipe below.

Fruit Punch
1.25 L orange juice
2.5 L cranberry juice
1 L ginger ale

He will make three times the amount of fruit punch listed in the recipe. What is the total amount of fruit punch, in liters, that Pax will make?

A 4.53   B 4.75   C 12.90   D 14.25

National Toppers ICATS Science Contest 2018

Congratulations

Student Name	Father Name	Grade	School
ALI RIAZ	RIAZ AHMAD	1	BEACONHOUSE SCHOOL SYSTEM (PRIMARY CAMPUS)
FILZA ALI	ALI RAZA	2	ARMY PUBLIC SCHOOL COD
M. ZARAR HAIDER	FAHEEM HASSAN	3	MEEZAN SCHOOL (MAIN CAMPUS)
IMAD AHMAD	BAHARUDDIN	4	ARMY PUBLIC SCHOOL & COLLEGE SWAT
WANIA ALI	SAFDAR ALI	4	LAHORE GRAMMAR SCHOOL (LANDMARK PROJECT)
QASIM RASOOL	FAIZ UR RASOOL	4	ARMY BURN HALL COLLEGE FOR GIRLS
M. RAFFAY KUNDI	AFIF NASEER KUNDI	5	THE SCIENCE SCHOOL
AYESHA JUNAID	MUHAMMD JUNAID	5	LAHORE GRAMMAR SCHOOL
ARYAN HASSAN	AFARASAYAB HASSAN	5	THE CITY JUNIOR SECTION CANAL
TAHER MURTAZA	MURTAZA BHINDERWALA	6	MSB EDUCATIONAL INSTITUTE
AREEJ AMIR	AMIR MASOOD	7	KARACHI PUBLIC SCHOOL
MUHAMMAD ALI	MUHAMMAD NAVEED	8	THE SCIENCE SCHOOL
ZOIBA RIAZ	RIAZ HUSSAIN	9	THE CITY SCHOOL RAHIM YAR KHAN
WAJAHAT MIRZA	ARIF MEHMOOD	10	KOHINOOR GRAMMAR SCHOOL & COLLEGE

National Toppers ICATS IT Contest 2018

Congratulations

Student Name	Father Name	Grade	School
NOOR FATIMA	IMRAN ALI	1	HALIMAH SCHOOL OF EXCELLENCE
MUHAMMAD AFAQ	TAYYAB GHAFFAR	2	MEEZAN SCHOOL (CITY CAMPUS)
UMAR YOUSAF	MUHAMMAD YOUSAF	3	ARMY PUBLIC SCHOOL GARRISON JUNIOR LAHORE CANTT
AAN ZAHRA RANA	RANA	3	ARMY PUBLIC SCHOOL (GIRLS BRANCH)
RIDA YASIR	M. YASIR SALEEM	4	THE CITY SCHOOL (GULSHAN JUNIOR CAMPUS)
MUHAMMAD HAMIZ	MUHAMMAD ADIL	5	AI-QALAM GRAMMAR SCHOOL HAJIWALA
WAJAHAT ALI SHAFIQ	MUHAMMAD SHAFIQ	6	QUAID E AZAM DIVISIONAL PUBLIC SCHOOL
NASHRAH	SHEHZAD	7	GUARDS PUBLIC SCHOOL
ANEES HAMID	HAMID BASHIR	8	PAK TURK INTERNATIONAL SCHOOL AND COLLEGE
LAIBA GABOL	SALEEM GABOL	9	HABIB GIRLS' SCHOOL
AHMED ALI	M . AUN	10	MSB EDUCATIONAL INSTITUTE

Compete
if you are the best

www.catscontests.org