



International FSP Contests

2024 QUESTION BOOKLET

GRADE 7 & 8

VIBRANT YOUNGSTERS

Time Allowed : 90 Minutes
Maximum Marks : 90

EXHIBIT YOUR SKILLS TO THE WORLD

FSP
Mathematics
Contest



INSTRUCTIONS FROM THE EXAMINATION INVIGILATORS

- 1) Invigilators must be carried out promptly.
- 2) Don't start attempting the paper until instructed by the invigilator.
- 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 in to the room.
- 10) There are five categories of the contest as under:
 - A) Vibrant youngsters Grade 1 & 2
 - B) Vibrant youngsters Grade 3 & 4
 - C) Vibrant youngsters Grade 5 & 6
 - D) Vibrant youngsters Grade 7 & 8
 - E) Vibrant youngsters Grade 9 & 10 / 0-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.fspcompetitions.org
- 15) Any academic misconduct or malpractice must be reported to FSP vibrant youngsters at info@fspcompetitions.org

Q-1

Which of these is NOT a factor pair of 225?

A. (15,15)

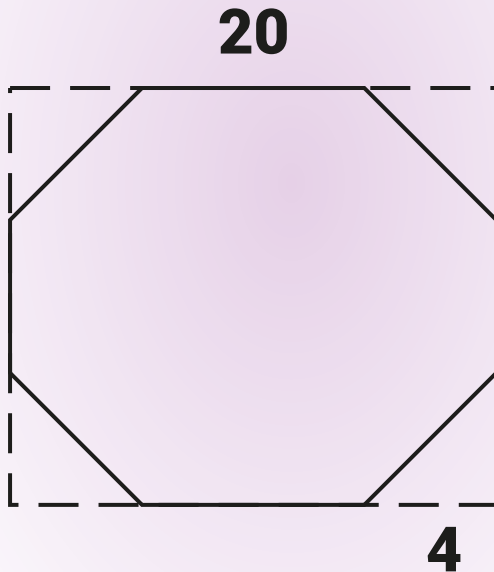
B. (1,225)

C. (15,4)

D. (75,3)

Q-2

Four congruent isosceles right triangles are cut from the 4 corners of a square with a side of 20 units. The length of one leg of the triangles is equal to 4 units. What is the area of the remaining octagon?



A. 268 square units

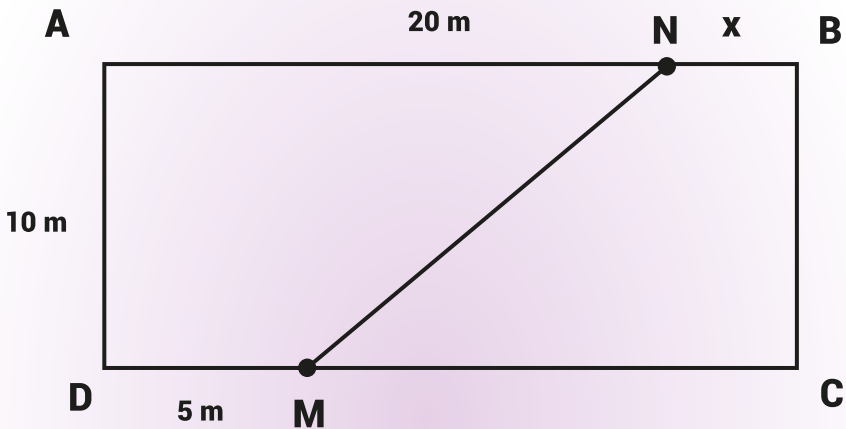
B. 428 square units

C. 562 square units

D. 368 square units

Q-3

In the rectangle below, the line MN cuts the rectangle into two regions. Find x the length of segment NB so that the area of the quadrilateral MNBC is 40% of the total area of the rectangle.



A. $x = 3/5$ meter

B. $x = 4/8$ meter

C. $x = 5/6$ meter

D. $x = 9/9$ meter

Q-4

In a car full of small balls, $1/4$ of these balls are green, $1/8$ are blue, $1/12$ are yellow and the remaining 26 white. How many balls are blue?

A. 8 balls are blue

B. 6 balls are blue

C. 12 balls are blue

D. 10 balls are blue

Q-5

N is one of the numbers below. N is such that when multiplied by 0.75 gives 1. Which number is equal to N?

A. $1\frac{1}{2}$

B. $\frac{5}{3}$

C. $\frac{3}{2}$

D. $1\frac{1}{3}$

Q-6

The rectangular playground in Tim's school is three times as long as it is wide. The area of the playground is 75 square meters. What is the perimeter of the playground?

A. 40 square meters

B. 60 square meters

C. 30 square meters

D. 20 square meters

Q-7

Abdullah bought a shirt on sale for 25% off the original price and another 25 % off the discounted price. If the final price was \$16, what was the price before the first discount?



A. \$23.54

B. \$18.60

C. \$58.36

D. \$28.44

Q-8

A person jogged 10 times along the perimeter of a rectangular field at the rate of 12 kilometers per hour for 30 minutes. If field has a length that is twice its width, find the area of the field in square meters.

A. 20,000 square meters**B.** 30,000 square meters**C.** 70,600 square meters**D.** 20,999 square meters**Q-9**

John had a stock of 1200 books in his bookshop. He sold 75 on Monday, 50 on Tuesday, 64 on Wednesday, 78 on Thursday and 135 on Friday. What percentage of the books were not sold?

A. 55.5%**B.** 43.6%**C.** 66.5%**D.** 76.9%**Q-10**

In a school 50% of the students are younger than 10, $\frac{1}{20}$ are 10 years old and $\frac{1}{10}$ are older than 10 but younger than 12, the remaining 70 students are 12 years or older. How many students are 10 years old?

A. 10 students are 10 years old**B.** 20 students are 10 years old**C.** 30 students are 10 years old**D.** 40 students are 10 years old

Q-11

The area of a rhombus is 240 cm^2 and one of the diagonals is 16 cm. Find the other diagonal.

- A) 16 cm B) 30 cm C) 20 cm D) 36 cm

Q-12

If a cuboidal box has height, length and width as 20 cm, 15 cm and 10 cm respectively. Then its total surface area is:

A. 1100 cm^2

B. 1200 cm^2

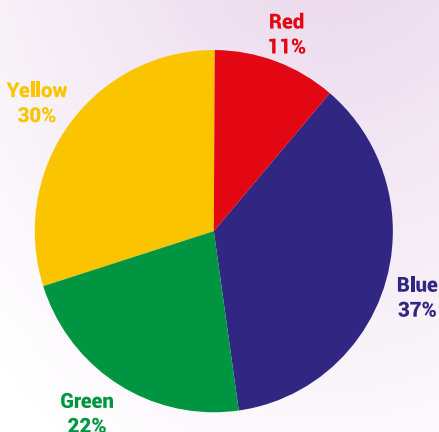
C. 1300 cm^2

D. 1400 cm^2

Q-13

Below is the pie graph showing colors picked by students of a class. Number of students who picked blue color are 111. How many students were there in that class?

COLORS PICKED BY STUDENTS



A. 200

B. 400

C. 100

D. 300

Q-14

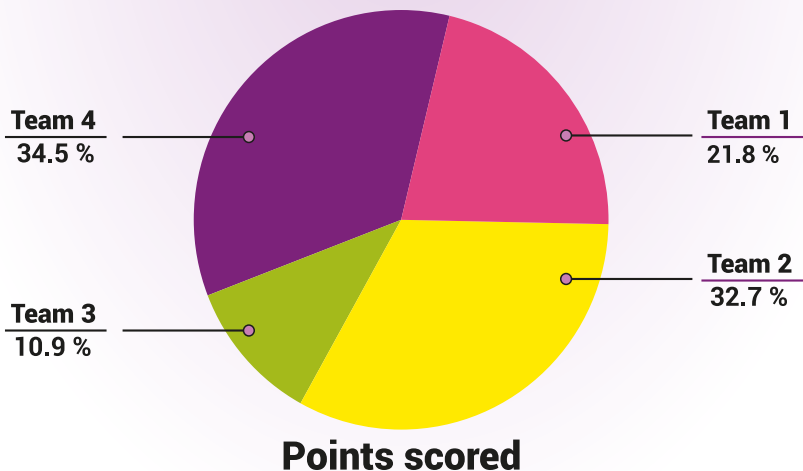
There are 321,200 people who played tennis last year, this year the number of players has decreased by 6%. How many people played tennis this year?

A. 128,480**B.** 340,472**C.** 301,928**D.** 308,352**Q-15**

Amna's bank account increased by 54%. If the bank account was \$600, it is now worth:

A. \$276**B.** \$924**C.** \$876**D.** \$324

Observe the diagram, given below and find the correct answer the questions 16 through 20.



Q-16

Which team has the highest score?

- A.** Team 1 **B.** Team 2 **C.** Team 3 **D.** Team 4

Q-17

Which team has the lowest score?

- A.** Team 1 **B.** Team 2 **C.** Team 3 **D.** Team 4

Q-18.

Which team is colored green?

- A.** Team 1 **B.** Team 2 **C.** Team 3 **D.** Team 4

Q-19

What is the average score of all the teams?

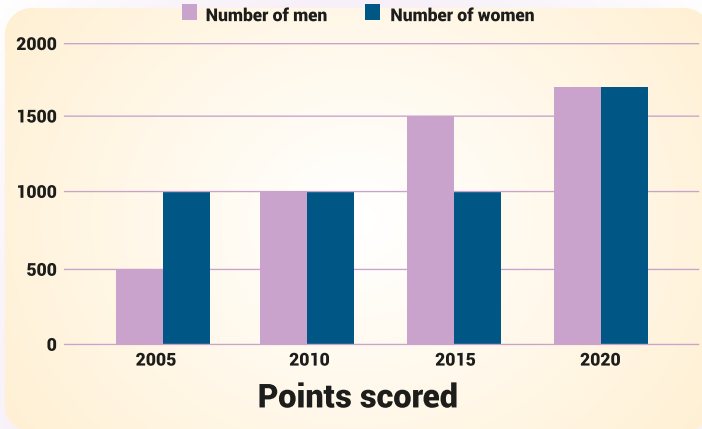
- A.** 22% **B.** 25% **C.** 27% **D.** 29%

Q-20

Which team has the second-highest score?

- A.** Team 1 **B.** Team 2 **C.** Team 3 **D.** Team 4

Below is the data of the number of men and women in a village for different years. Now based on this data answer the questions 21 through 25.



Q-21

How many men were there in the village in 2010?

A. 500

B. 1000

C. 1500

D. 2000

Q-22

The population of men and women in 2020 is the same?

A. True

B. False

C. True and False

D. none of these

Q-23

In which year the population of women is the highest?

A. 2005

B. 2010

C. 2015

D. 2020

Q-24

When is the population of men, the minimum?

A. 2005**B.** 2010**C.** 2015**D.** 2020**Q-25**

In which year population of men is more than women?

A. 2005**B.** 2010**C.** 2015**D.** 2020**Q-26**

If we join $(-3,2)$, $(-3,-3)$ and $(-3,4)$, then we obtain:

A. A triangle**B.** Straight-line without passing through origin**C.** Straight-line passing through origin**D.** None of the above

Q-27

The point $(4,0)$ lies on which of the following?

A. x-axis

B. y-axis

C. origin

D. None of the above

Q-28

The point $(0,0)$ lies at:

A. x-axis

B. y-axis

C. origin

D. None of the above

Q-29

A _____ is a bar graph that shows data in intervals.

A. Bar-graph

B. Pie-chart

C. Histogram

D. Line Graph

Q-30

A graph that displays data that changes continuously over periods of time is called:

A. Bar-graph

B. Pie-chart

C. Histogram

D. Line Graph

HIGH ACHIEVERS

AWARDS 2024

Name	Institution Name	City	Contest
Ms. Jamila Mohammed Hussain	Saifiyah Boys High School	Karachi	FSP Art Contest (Vol-14) 2024
Ms. Farrah Amir Ali	Saifiyah Boys High School	Karachi	FSP Creative Writing Contest (Vol-14) 2024
Ms. Zofishan Arshad	Fazaia Inter College	Islamabad	FSP Art And Creative Writing Contest (Vol-14) 2024
Ms. Mehnaz Aslam	Army Public School and College	Rawalpindi	FSP Creative Writing Contest (Vol-14) 2024
Ms. Afshan	Daanish School (Girls) Hasilpur	Hasilpur	FSP Art Contest (Vol-14) 2024
Mrs. Samina Shahnawaz	Daanish School (Girls) Hasilpur	Hasilpur	FSP Creative Writing Contest (Vol-14) 2024
Ms. Noveen Nasir	Sacred Heart Convent High School	Faisalabad	FSP Art And Creative Writing Contest (Vol-14) 2024
Ms. Sana Siddique	DHA Junior School T-Block	Lahore	FSP Art Contest (Vol-14) 2024
Ms. Mehwish Zulfiqar	DHA Junior School T-Block	Lahore	FSP Creative Writing Contest (Vol-14) 2024
Mr. Muhammad Zubair	Army Public School and College - Boys	Multan	FSP Art And Creative Writing Contest (Vol-14) 2024
Ms. Saira Arshad	Allama Iqbal Public Girls High School	Sialkot	FSP Art Contest (Vol-14) 2024

Name	Institution Name	City	Contest
Ms. Warda Gulzar	Allama Iqbal Public Girls High School	Sialkot	FSP Creative Writing Contest (Vol-14) 2024
Ms. Maria Hassan	Lesco (Wapda) Girls High School	Lahore	FSP Creative Writing Contest (Vol-14) 2024
Ms. Aliya Inayat	Fauji Foundation College Peshawar	Peshawar	FSP Art And Creative Writing Contest (Vol-14) 2024
Mr. Imran Waheed	Daanish School Boys - Hasilpur	Hasilpur	FSP Art Contest (Vol-14) 2024
Mr. Muhammad Qamar Shahzad	Daanish School Boys - Hasilpur	Hasilpur	FSP Creative Writing Contest (Vol-14) 2024
Ms. Fouzia Noreen	Iqra Army Public School & College	Tarbela	FSP Art And Creative Writing Contest (Vol-14) 2024
Syeda Ghazia Rubab	Pak Turk Maarif Int. Schools and Colleges	Islamabad	FSP Art And Creative Writing Contest (Vol-14) 2024
Syeda Shahzadi Afshan Batool	FFC Morgah Campus	Rawalpindi	FSP Art Contest (Vol-14) 2024
Ms. Komal Sheraz	FFC Morgah Campus	Rawalpindi	FSP Art Contest (Vol-14) 2024
Ms. Ansa Nazir	Bahria College Zafar Campus	Islamabad	FSP Art Contest (Vol-14) 2024
Ms. Iqra Akram	Bahria College Zafar Campus	Islamabad	FSP Creative Writing Contest (Vol-14) 2024
Ms. Amna Shahid	Lahore Grammar School International	Lahore	FSP Art And Creative Writing Contest (Vol-14) 2024
Ms. Sadaf Mughal	Vacs	Karachi	FSP Art Contest (Vol-14) 2024

Name	Institution Name	City	Contest
Ms. Kalsoom Shoaib	Army Public School for Int. Studies	Karachi	FSP Art And Creative Writing Contest (Vol-14) 2024
Ms. Salma Tariq	Army Public School for Int. Studies	Karachi	FSP Art Contest (Vol-14) 2024
Ms. Nimra Khan	Army Public School for Int. Studies	Karachi	FSP Art Contest (Vol-14) 2024
Ms. Nadiya Khan	Aps (Boys) Sarfraz Rafiqui (GBHS)	Lahore	FSP Creative Writing Contest (Vol-14) 2024
Ms. Sumaira Mehdi	Army Public School and College	Dera Ismail Khan	FSP Art And Creative Writing Contest (Vol-14) 2024
Ms. Amna Arshad	Pakturk Maarif Int'L Schols & Colleges	Lahore	FSP Art Contest (Vol-14) 2024



ANSWER SHEET

GRADE 7 & 8



Q.NO ANSWER

1	☐ A	☐ B	☒	☐ D
2	☐ A	☐ B	☐ C	☒
3	☐ A	☐ B	☒	☐ D
4	☐ A	☒	☐ C	☐ D
5	☐ A	☐ B	☐ C	☒
6	☒	☐ B	☐ C	☐ D
7	☐ A	☐ B	☐ C	☒
8	☒	☐ B	☐ C	☐ D
9	☐ A	☐ B	☒	☐ D
10	☒	☐ B	☐ C	☐ D
11	☐ A	☒	☐ C	☐ D
12	☐ A	☐ B	☒	☐ D
13	☐ A	☐ B	☐ C	☒
14	☒	☐ B	☐ C	☐ D
15	☐ A	☒	☐ C	☐ D

Q.NO ANSWER

16	☐ A	☐ B	☐ C	☒
17	☐ A	☐ B	☒	☐ D
18	☐ A	☐ B	☒	☐ D
19	☐ A	☒	☐ C	☐ D
20	☐ A	☒	☐ C	☐ D
21	☐ A	☒	☐ C	☐ D
22	☒	☐ B	☐ C	☐ D
23	☐ A	☐ B	☐ C	☒
24	☒	☐ B	☐ C	☐ D
25	☐ A	☐ B	☒	☐ D
26	☐ A	☒	☐ C	☐ D
27	☒	☐ B	☐ C	☐ D
28	☐ A	☐ B	☒	☐ D
29	☐ A	☐ B	☒	☐ D
30	☐ A	☐ B	☐ C	☒



International FSP Contests





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