Brainiacs Math Olympiad Preliminary Round Sample Exam Paper

Category I – grade 3 and 4

Q1.

Ahmad started the lesson at 09: 15 and finished at 13: 05. How long did Ahmad study?

A. 3 hours 10 minutes

B. 2 hours 50 minutes

C. 3 hours 50 minutes

D. 2 hours 10 minutes

Q2.

What number comes next? 2, 5, 10, 17, 26, 37, …

A. 63

B. 50

C. 42

D. 39

Q3.

There are 20 trees in a row. The distance between each of the 2 trees is 2 m. What is the distance between first and last tree?

A. 46

B. 40

C. 38

D. 32

Q4.

If $X \Delta Y = X + Y$ and $X \odot Y = X \times Y$, find $(4 \Delta 3) \odot 2$.

A. 14

B.12

C.10

D.8

Q5.

Which day of the week will April 22nd be if March 22nd is a Friday?

A. Monday

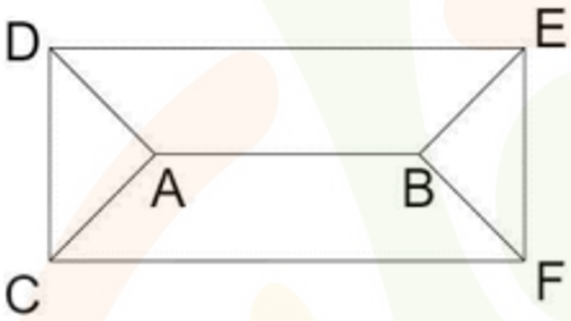
B. Tuesday

C. Friday

D. Sunday

Q6.

How many different ways you can use to get from A to B? (You can go through each point only once)



A. 8

B. 9

C. 10

D. 11

Q7.

Two plums weigh one apple and three apples weigh two oranges. How many plums does one orange weigh?

A. 2 plums

B. 3 plums

C. 4 plums

D. 5 plums

Q8.

The sum of the ages of mother, father and son is 66. What will be the sum of their ages after 3 years?

A. 69

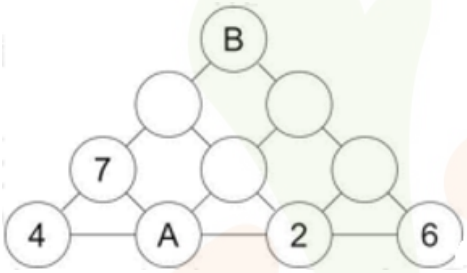
B.72

C.75

D.78

Q9.

Find A + B, given that the sum of the numbers in two lower circles is equal to the number in the upper circle, which are connected in a triangular formation.



A.25

B.28

C.31

D.37

Q10.

There are 30 cats in the yard. These include mothers and kittens. Each mother cat has at least 3 kittens. What is the maximum number of mother cats?

A. 8

B. 7

C. 6

D. 5

Q11.

Grandma poured 30 liters of water into five three-liter and four two-liter jars, and the rest into half-liter jars. How many half-liter jars did Grandma use?

A.20 half-liter jars

B. 17 half-liter jars

C. 14 half-liter jars

D. 12 half-liter jars

Q12.

There are four doors and their four keys. How many attempts does it take to figure out which key fits which door? (Each key takes only one door).

A. 10

B. 8

C. 7

D. 6

Q13.

John, Jane, Jimmy and Janet together have 42 balls. John has as many balls as Jane, Jimmy and Janet together. Jane has 5 balls more than Jimmy and 8 balls less than Janet. How many balls does Jane have?

A. 4

B. 5

C. 6

D. 7

Q14.

Solve $\frac{3}{5} - \frac{7}{15}$

A) $\frac{2}{5}$

B) $\frac{4}{15}$

C) $\frac{2}{15}$

D) $\frac{4}{5}$

Q15.

Order the fractions $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$ from least to greatest.

A) $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$

B) $\frac{3}{4}, \frac{1}{2}, \frac{1}{4}$

C) $\frac{1}{2}, \frac{3}{4}, \frac{1}{4}$

D) $\frac{1}{4}, \frac{3}{4}, \frac{1}{2}$

Q16.

If $\frac{9}{12}$ of a pizza is left and you want to share it among three friends, how much pizza will each person get?

A) $\frac{3}{4}$

B) $\frac{1}{4}$

C) $\frac{3}{8}$

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

Q17.

Which of the following is divisible by both 2 and 3?

A) 18

B) 20

C) 25

D) 32

Q18.

What digit can replace the "?" in number 48?6 to make it divisible by 6?

A) 0

B) 1

C) 2

D) 4

Q19.

The sum of two numbers is 96. The larger number is twice as large as the smaller number. Find the larger number.

A) 128

B) 64

C) 48

D) 32

Q20.

What is the area of a rectangle with a length of 5 cm and a width of 3 cm?

A) 15 cm^2

B) 8 cm^2

C) 12 cm^2

D) 18 cm^2