

Kangaroo.Study

GEP Screening

MOCK EXAM 2023

Subject: Maths

Total Duration: 1 hour 15 minutes

Name: _____

INSTRUCTIONS TO PUPILS

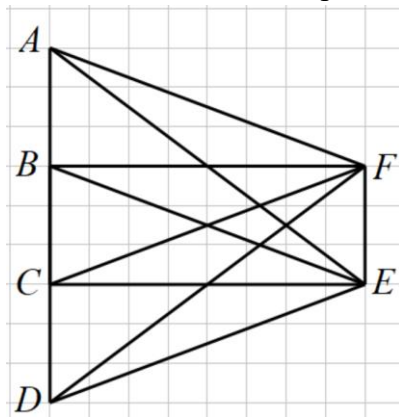
- 1. Do not turn over this page until you are told to do so.**
- 2. Follow all instructions carefully.**
- 3. Q1-Q20: choose the correct answer.**
- 4. Q21-Q40: write your answer.**

1. What is the missing number?

$$9851 = 8000 + (\quad) \div 5 - 2$$

- A. 5553 B. 9265 C. 9245 D. 617

2. Which line is line BE parallel to?



- A. AF B. AD C. CF D. DF

3. Adrian was standing in a queue of 17 people. There were 8 people behind him, how many people were there in front of him?

- A. 7 B. 8 C. 9 D. 10

4. How many minutes are there in two days?

- A. 2440 B. 2660 C. 2880 D. 2000

5. Observe the following pattern: 1, 3, 7, 15, 31, What is the 8th number?

- A. 127 B. 128 C. 255 D. 256

6. Which one of the following is equal to $\frac{2}{3}$?

- A. $\frac{3}{4}$
B. $\frac{5}{6}$
C. $\frac{4}{9}$
D. $\frac{8}{12}$

7. The weight of 1 cow is equal to the weight of 1 rabbit and 1 pig, the weight of 1 pig is equal to the weight of 1 rabbit and 2 ducks, the weight of 1 rabbit is equal to the weight of 3 ducks. How many ducks weigh the same as 1 cow?

- A. 8 B. 6 C. 5 D. 4

8. Find the difference between the place value of the digit 5 and the digit 2 in the number 9527.

- A. 3 B. 30 C. 150 D. 480

9. Alex brought \$52 to buy apple juice. Each bottle of apple juice costs \$2.4 and there is a deal of 3 bottles for \$7. How many bottles of apple juice can he buy at most?

- A. 8 B. 21 C. 22 D. 24

10. Alex has a glass of juice with a volume of 567ml. Ben has 89ml more juice than Alex, and Ben has 123ml less juice than Cindy. What is the total volume of juice for the three of them?

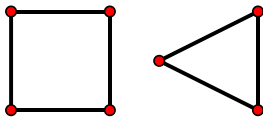
- A. 779ml B. 1667ml C. 1756ml D. 2002ml

11. Arrange these fractions from the smallest to the largest.

$$\frac{2}{3}, \frac{1}{4}, \frac{3}{8}, \frac{5}{9}$$

- A. $\frac{1}{4}, \frac{2}{3}, \frac{3}{8}, \frac{5}{9}$
 B. $\frac{2}{3}, \frac{1}{4}, \frac{3}{8}, \frac{5}{9}$
 C. $\frac{1}{4}, \frac{3}{8}, \frac{5}{9}, \frac{2}{3}$
 D. $\frac{1}{4}, \frac{3}{8}, \frac{2}{3}, \frac{5}{9}$

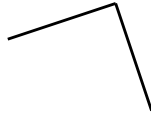
12. Matchsticks can be used to form a square or triangle as shown below. With some matchsticks, Peter formed 8 shapes consisting of some squares and triangles. If he uses the same number of matchsticks to form only triangles instead, he can obtain two more shapes. How many squares did he form initially?



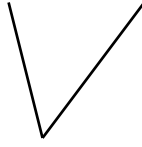
- A. 6 B. 7 C. 8 D. 5

13. Which of the following figures shows an angle that is smaller than a right angle?

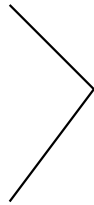
A.



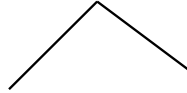
B.



C.



D.



14. Little white rabbit can pick 6 mushrooms every day, and little grey rabbit picks 4 fewer mushrooms every day than little white rabbit. How many mushrooms can they pick together in 7 days?

A. 70

B. 14

C. 112

D. 56

15. What is the difference between the largest possible 3-digit number and the smallest 2-digit even number that can be formed using the 5 numbers: 3, 4, 6, 8, 9 without repetition? (The 2-digit and 3-digit numbers can't use the same number.)

A. 655

B. 943

C. 952

D. 646

16. The teacher has some candies and there are 8 students in the class. After giving each student 7 candies, there are not enough candies left to be evenly distributed to all students. What is the maximum number of candies the teacher has at the beginning?

A. 6

B. 56

C. 62

D. 63

17. Find the value of \bigcirc .

$$\triangle + \square + \bigcirc = 14$$

$$\triangle + \triangle + \square = 11$$

$$\triangle + \square + \triangle + \square = 16$$

- A. 2 B. 3 C. 5 D. 6

18. What is the sum of A and B?

$$\frac{A}{3} + \frac{1}{4} + \frac{1}{6} + \frac{B}{12} = 1$$

- A. 10 B. 8 C. 6 D. 4

19. There is a 2-digit number. The results when this number is added by 24 and multiplied by 3 are the same. The results when this number is added by 60 and multiplied by a number M are also the same. What is the number M?

- A. 4 B. 5 C. 6 D. 7

20. There are 900 people in the hall, 390 of them adults, and the rest are kids. Boys make up one-third of all the children. How many girls are there?

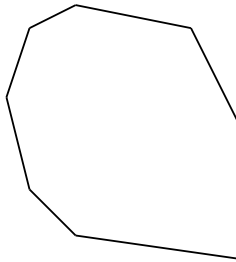
- A. 510 B. 600 C. 170 D. 340

21. $47 \div (\quad) = 9R2$. What is the missing number?

22. Complete the number pattern below.

4123, 4234, 4456, 4789, _____, 5788, ...

23. In the figure below, how many more obtuse angles are there than acute angles?



24. Find the smallest 4-digit even number that can be formed, with digits 5, 0, 2, and 6. All the digits must be used. Each digit can only be used once.

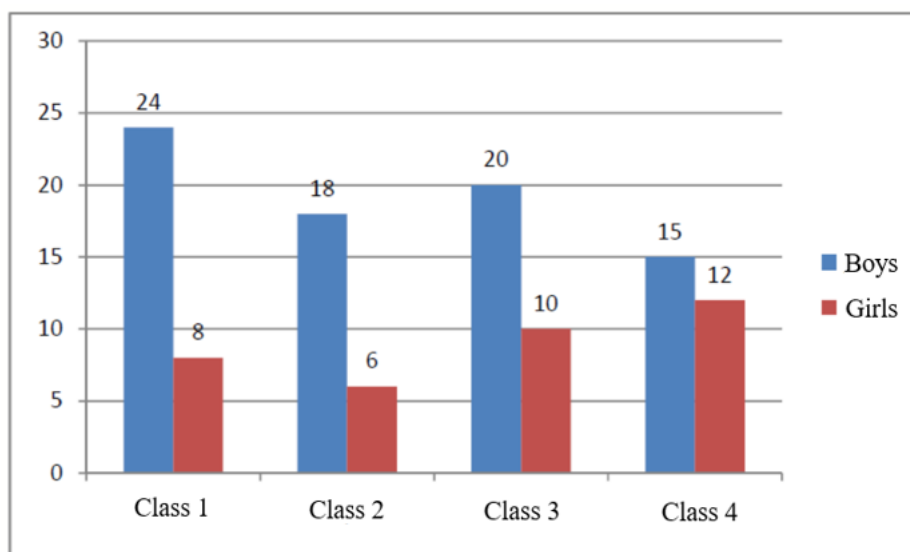
25. Cindy left home at 10 minutes past 10 in the morning and returned home at 15 minutes to 3 in the afternoon. How many minutes did she spend outside?

26. What is the sum of the numbers in the blanks in the unit digit and hundreds digit?

$$\begin{array}{r}
 7 \\
 + \quad \square \quad 5 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

27. The sum of 2 numbers is 180. The difference between the 2 numbers is 16. What is the value of the smaller number?

28. Here is a statistical chart for the tree planting activity participated by third-grade students. If each boy planted 3 trees and each girl planted 2 trees, how many trees were planted in total?



29. How many triangles are there in the first 64 figures?

○△□△○△□△○△□△○△□△○.....

30. Ann is 11 years old. Her sister is 8 years younger. When Ann's age is twice that of her sister, how old is Ann?

31. There is a lake, and it takes 854m to walk around it. If a tree is planted every 7m, how many trees can be planted around the lake?

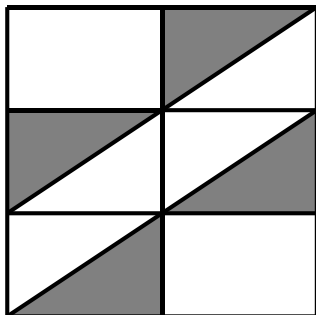
32. Mr. Tan has some apples and some baskets. If he puts 3 kg of apples in each basket, there will be 12 kg of apples left. If he puts 5 kg of apples in each basket, there will be 2 kg of apples left. How many kilograms of apples does he have?

33. Penny had a glass of coconut water. She shared half of it with her younger brother. Then, her mother poured an additional 200ml into the glass. After Penny drank 50ml, there was still 600ml left in the glass. How many ml of coconut water did she initially have in her glass?

34. There is a container filled with some juice, and the total weight of the container and juice is 3 kg. Alex pours in an additional 800 ml of juice, causing the weight of the juice in the container to triple. Now the total weight of the container and juice is 4400 g. What is the weight of the container in grams?

35. Melody had 120 stamps more than Jeremy. After they each gave Alex 20 stamps, they still have 400 stamps left in total. How many stamps did Melody have at first?

36. The figure below is made up of 6 identical rectangles. What fraction of the figure is shaded? Give your answer in its simplest form.



37. Following the pattern below, how many sticks are needed to form 11 squares?



38. Teacher Gao gives 189 pieces of chocolates to his students. If each girl gets 8 pieces, and each boy gets 7 pieces, no chocolates will be left. If there are more boys than girls, how many students are there in total?

39. Ahmad and Wayne are drinking milk, and they have a total of 2 L and 400 ml of milk. Ahmad's milk is twice the amount of Wayne's milk. How many ml of milk does Wayne have?

40. Alex, Ben, and Cindy each have some twenty-cent coins and fifty-cent coins. Alex has 10 twenty-cent coins, and he has 4 more fifty-cent coins than Ben. Ben has 5 fewer twenty-cent coins than Cindy. If they each have 6 dollars, how many fifty-cent coins does Cindy have?