

Kangaroo.Study GEP Screening MOCK EXAM 2024

Subject: Maths

Total Duration: 1 hour 15 minutes

Name: _____

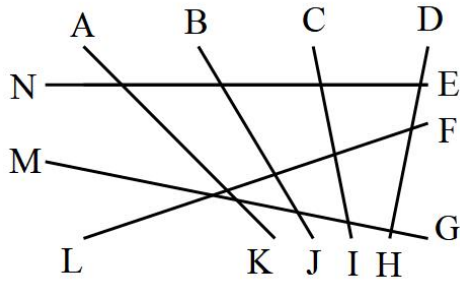
INSTRUCTIONS TO PUPILS

- 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.**
- 5. Write all your answers on the answer sheet.**

1. What is the difference between 2234 and 789?

- (1) 3023 (2) 2555 (3) 1445 (4) 5664

2. Which line might be perpendicular to line DH?

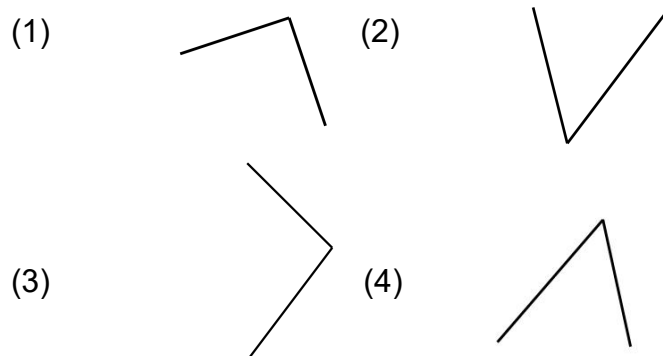


- (1) MG (2) LF (3) NE (4) AK

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

- (1) $\frac{3}{4}$
 (2) $\frac{5}{6}$
 (3) $\frac{4}{9}$
 (4) $\frac{8}{12}$

4. Which of the following figures shows an angle that is bigger than a right angle?



5. The starting time and duration for different movies are as shown below.

	Burning Fire Duration: 1 h 30 min		How to Tame Your Dragon Duration: 2 h	
Movie Timings	11 a.m.	4:30 p.m.	10:30 a.m.	4:50 p.m.
	12:20 p.m.	5 p.m.	2:40 p.m.	6 p.m.
	2:45 p.m.	8:55 p.m.	4:30 p.m.	9 p.m.

Alice watched "How to Tame Your Dragon".

The movie ended at 6:30 p.m. What time did the movie start?

- (1) 4:30 p.m. (2) 5 p.m. (3) 8:00 p.m. (4) 8:30 p.m.

6. 57 participants went to attend a meeting. Similar chairs were arranged in a row from one end of the hall to another end. A chair is 30 cm wide. A chair was placed one metre apart from each other. What is the distance between the 1st chair and the 57th chair?

- (1) 7380cm (2) 7350cm (3) 7280cm (4) 7250cm

7. What is the missing number?

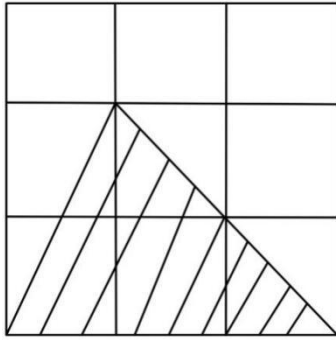
123, 246, 369, ____, 615

- (1) 482 (2) 492 (3) 502 (4) 468

8. Find the difference between the place value of the first digit "2" and the second digit "2" in the number 2024.

- (1) 0 (2) 198 (3) 2020 (4) 1980

9. What fraction of the square is shaded? Give your answer in its simplest form.



- (1) $\frac{5}{9}$ (2) $\frac{4}{9}$ (3) $\frac{3}{9}$ (4) $\frac{1}{3}$

10. The capacity of 3 bottles and 5 cups is 980 ml. The capacity of a bottle is thrice of a cup. What is the capacity of a bottle?

- (1) 122ml (2) 70ml (3) 210ml (4) 54ml

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

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

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

12. Three non-equivalent fractions are arranged from smallest to biggest,

$$\frac{1}{2}, \text{ ———— }, \frac{3}{4}.$$

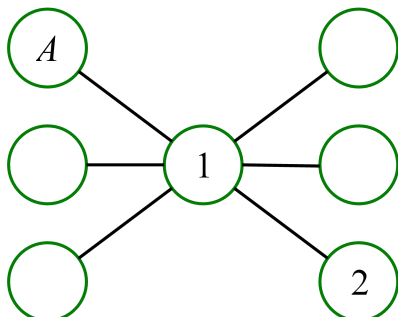
What is the missing fraction?

- (1) $\frac{5}{8}$ (2) $\frac{7}{8}$ (3) $\frac{1}{4}$ (4) $\frac{1}{3}$

13. Mr Tho bought 2 similar books and 3 similar magazines for 24.90 dollars. 1 such book and 1 such magazine cost a total of 10 dollars. How much did 1 book cost?

- (1) 4.90 dollars (2) 5.1 dollars (3) 10 dollars (4) 14.9 dollars

14. Fill in the numbers 3, 4, 5, 6, and 7 without repetition so that the sum of three numbers along each line is equal. What is the value of A?



- (1) 3 (2) 5 (3) 7 (4) 6

15. What is the smallest difference between the 3-digit number and the 2-digit number that can be formed using the 5 numbers: 3, 4, 6, 8, 9 without repetition?

- (1) 257 (2) 248 (3) 266 (4) 952

16. Alex, Ben and Cindy had 44 marbles altogether. After Alex bought 10 marbles and Ben sold 6 marbles, they three have equal number of marbles. How many marbles did Ben have at first?

- (1) 6 (2) 16 (3) 22 (4) 24

17. 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 26 boys and girls, how many girls are there?

- (1) 7 (2) 9 (3) 19 (4) 26

18. A and B are whole numbers. A is bigger than B. What is the sum of A and B?

$$\frac{A}{3} + \frac{1}{6} + \frac{1}{9} + \frac{B}{18} = 1$$

- (1) 13 (2) 5 (3) 4 (4) 3

19. \triangle and \square are whole numbers.

$\triangle\square$ and $\square\triangle$ are 2-digit numbers,

\triangle is bigger than \square

$\triangle\square \div 10$, the remainder is 6, $\square\triangle \div 5$, the remainder is 4, what is the sum of \triangle and \square ?

- (1) 7 (2) 10 (3) 13 (4) 15

20. There are 100 chairs. It is placed into 10 rows and 10 columns. If 3 rows and 3 columns were taken away. How many chairs were taken away?

- (1) 9 (2) 91 (3) 49 (4) 51

21. How many 3-digit numbers greater than 500 can be formed using 5, 4, 3, 2 without repetition?

22. Arrange the numbers 4, 5, 6, and 7 without repetition into the blanks below. What is the smallest result?

$$\begin{array}{r} \square \quad \square \\ - \quad \square \quad \square \\ \hline \end{array}$$

23. Sweets in container B is 3 times of container A, some sweets from Container B shifted to A, after the shift both of the containers are 18. How many sweets in container A at first?

24. Each ticket cost \$3. Every 3 tickets bought, the 4th ticket is \$2. Sam has \$50, how many tickets can he buy?

25. $\triangle + \square = 700$

$$\diamond + \circ + \square = 1400$$

$$\diamond + \circ + \triangle = 1500$$

$$\diamond + \circ = ?$$

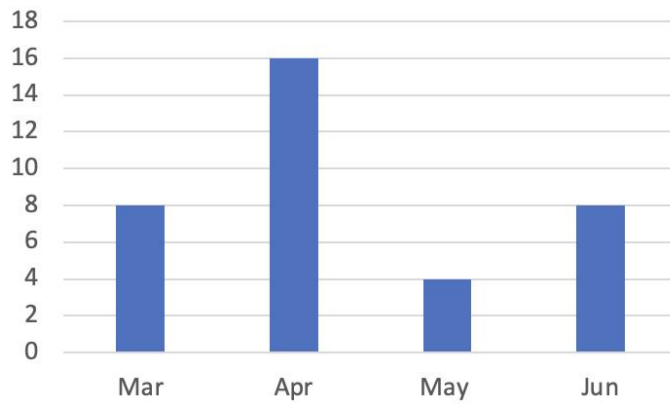
$$\begin{array}{r}
 2 \triangle \\
 26. + 3 \triangle, \square < \triangle \\
 \hline
 \square 4
 \end{array}$$

Find the sum of a square and a triangle.

27. Anna has some bags and some beads. She can put exactly 5 beads in each bag with nothing left. If she puts 6 beads in each bag, she will have 2 empty bags. How many bags are there?

28. The graph above shows the number of laptops sold between March and June in 2023.

- (1) How many laptops were sold from March to June?
(2) What is the difference between March and the sum of laptops sold in April and May?



29. PEARPEARPEAR.....

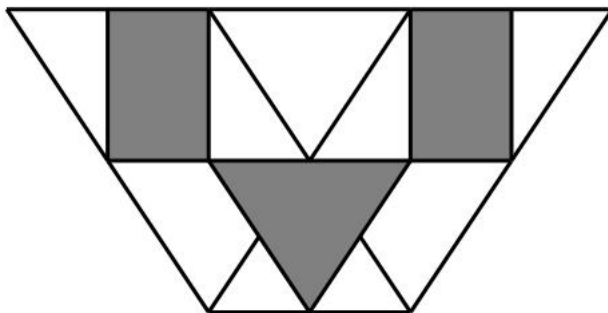
What letter would be 35th letter?

30. Sam, Tom, and Kelly have 55 cards, Sam and Tom have a total of 41 cards, Kelly and Tom have a total of 30 cards, how many cards does Tom have?

31. 1, 2, 3, ..., 21, 22. How many digits are there?

32. Alex has 2 less cards than Cindy. Alex received 14 more cards. Now Alex has twice the number of cards than Cindy has. How many cards does Alex had at first?

33. The figure below is made up of 8 identical triangles. Paint some areas black, some lines are hidden. What fraction of the figure is shaded? Give your answer in its simplest form.



34. Mark got some pocket money from his dad. He spent $\frac{1}{3}$ on food, $\frac{1}{9}$ on stationeries, how much money he had left?

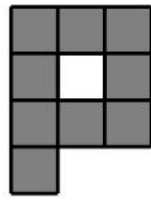
35. On the circle line, there are three MRT stations between Tai Seng MRT station and Bishan MRT station, starting and ending at any two of these five stations. How many different MRT tickets may be available?

36. A shirt cost 22.6 dollars more than a cap, 2 shirts and 2 caps cost 122.8 dollars. How much does one cap cost?

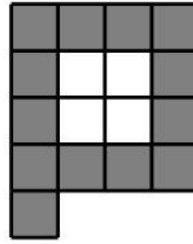
37. Alex and Ben have a total of 42 chocolates. If the number of Alex's chocolates is $\frac{2}{5}$ that of Ben's, how many chocolates does Alex have?

38. The sum of Alex's age 5 years ago and Ben's age 2 years from now is 32 years. Alex's age 1 year ago is equal to Ben's age 4 years from now. How old is Alex this year?

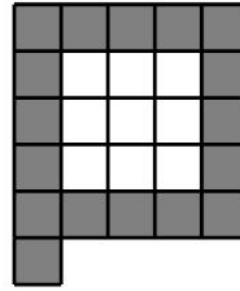
39. In which figure will there be 45 shaded squares?



(1)



(2)



(3)

40. There are 10 more girls than boys. Each girl has 2 red balls. Each boy has 3 blue balls. The number of blue balls is the same as the number of red balls. How many boys are there?

Answer

1-5: 31431

6-10: 42443

11-15: 31232

16-20: 31444

21: 6

22: 7

23: 9

24: 18

25: 1100

26: 13

27: 12

28: 36; 12

29: A

30: 16

31: 35

32: 10

33: $\frac{3}{8}$

34: $\frac{5}{9}$

35: 20

36: \$ 19.4

37: 12

38: 20

39: 10th

40: 20