GEP Mock Examination

Primary 3 Intensive Practice

Section A

Choose the correct answer and write its corresponding number in the space provided.

1. Calculate using a simple method. $64 \times 75 + 65 \times 25$

(1) 6575;   (2) 6475;
(3) 6525;   (4) 6425;
(5) None of the above

Answer: ____

2. Alex and Bob have 30 candies in total. If Alex gives Bob 2 candies, they have the same amount of candies. How many candies does Alex have?

(1) 13;   (2) 14;
(3) 16;   (4) 17;
(5) None of the above

Answer: ____

3. If a book has a total of 250 pages, how many digits are used in the pages from 1 to 250?

(1) 636;   (2) 640;
(3) 642;   (4) 648;
(5) None of the above

Answer: ____

4. Plant trees on both sides of a 30-meter-long straight road every 6 meters, so do both ends. How many trees should be planted in all?

(1) 5;   (2) 6;
(3) 10;   (4) 12;
(5) None of the above

Answer: ____

5. Three monkeys are eating peaches on a tree. The number of the peaches the first monkey has eaten is 2 more than half of the total number of peaches. The number of the peaches the second monkey has eaten is 10 less than half of the remaining peaches. The third monkey has eaten 15 peaches. Now there are 9 peaches on the tree. How many peaches are there on the tree at the beginning?

(1) 60;   (2) 78;
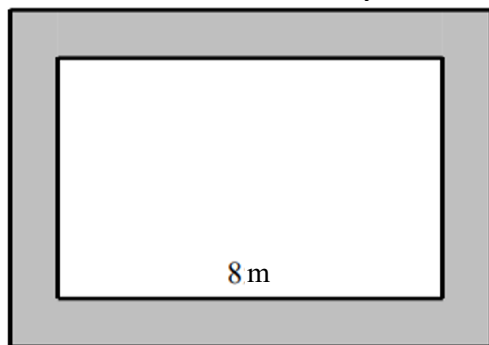(3) 114;   (4) 132;
(5) None of the above

Answer: ____

6. 3 students plant 20 trees in 2 hours, so how many trees do 6 students plant in 4 hours?

(1) 40;   (2) 60;
(3) 80;   (4) 100;
(5) None of the above

Answer: ____

7. As shown in the figure, there is a rectangular site. Its length is 8 meters, which is 3 meters more than its width. It is surrounded by a 1-meter-wide road. Find the area of the road (in m²).

8 m

(1)   26;   (2)   28;
(3)   30;   (4)   34;
(5)   None of the above

Answer: ____

8. The teacher asked Allen to plant a row of trees on one side of the road. At the beginning, Allen planted five poplar trees in succession. The teacher said: This is wrong. You should plant three willows, two pines, one poplar, and then three willows, two pines, and one poplar... According to this law, Allen planted a total of 200 trees. How many poplar trees did Fang plant?
(1)   33;   (2)   37;
(3)   38;   (4)   40;
(5)   None of the above

Answer: ____

9. In $\dfrac{1}{3}$, $\dfrac{3}{9}$, $\dfrac{5}{15}$, $\dfrac{7}{21}$, $\cdots$, $\dfrac{27}{81}$, $\dfrac{29}{87}$, how many equal fractions are there?
(1)   14;   (2)   15;
(3)   16;   (4)   17;
(5)   None of the above

Answer: ____

10. Four children Alex, Bob, Cindy and David were playing football in the yard. A window glass was broken. Someone in the window poked his head out and asked, "who broke the glass?"

Alex said, " Bob didn't mean to break it."
Bob said, " David broke it."
David said, " Bob lies."
Cindy said, "I didn't break it."

If only one child tells the truth, who is this child?
(1)   A;   (2)   B;
(3)   C;   (4)   D;
(5)   None of the above

Answer: ____

11. In an exam, five students A, B, C, D and E got the top five (not tied for the same place). Everyone made the following guesses about their ranking:

A said, "The second place is D and the third is B."
B said, "The second place is C and the fourth is E."
C said, "The first place is E, and the fifth is A."
D said, "The third is C and the fourth is A."
E said, "The second place is B, and the fifth place is D."

As a result, everyone guessed only half right. Who was the first?
(1) A;   (2) B;
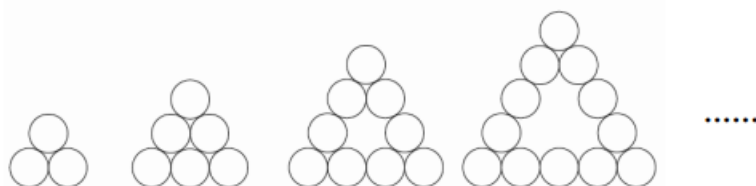(3) C;   (4) D;
(5) E.

Answer: _____

12. Alex gives several children coins. If Alex gives each child 10 coins, there will be 19 coins left; If Alex gives each child 12 coins, there will be 3 coins left. How many children are there in total?
(1) 8;   (2) 9;
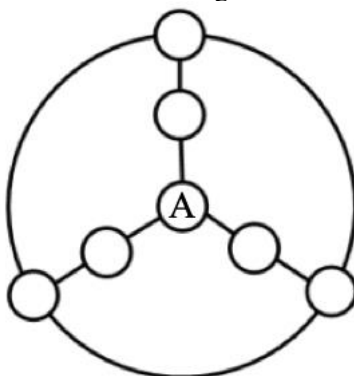(3) 10;   (4) 11;
(5) None of the above

Answer: _____

13. According to the law of the graph, how many circles does the tenth graph consist of?

(1) 24;   (2) 27;
(3) 30;   (4) 33;
(5) None of the above

Answer: _____

14. Fill the seven numbers 1 to 7 into the circles in the figure, so that the sum of the three numbers on each straight line and the three numbers on the big circle are equal to 10. Find the value of A.

(1) 1;   (2) 3;
(3) 4;   (4) 7;
(5) None of the above

Answer: _____

15. 30 students stood in a line facing the teacher. The teacher asked everyone to press 1, 2, 3, …, 29 and 30 from left to right to count off, then asked the students who reported a multiple of 2 to turn back, and then asked the students who reported a multiple of 3 to turn back. How many students turned back only once?
(1)   5;   (2)   10;
(3)   15;   (4)   20;
(5)   None of the above

Answer: ____

16. How many four-digit numbers can be formed using 0, 1, 2, 3, 4 and 5 only once?
(1)   300;   (2)   360;
(3)   1080;   (4)   1296;
(5)   None of the above

Answer: ____

17. As shown in the figure, the sum of three numbers in each row, column and diagonal is equal. Find the value of $x + y + a + b + c + d$.

15	a	b
4	c	d
x	12	y

(1)   64;   (2)   66;
(3)   68;   (4)   99;
(5)   None of the above

Answer: ____

18. Find the largest fraction of $\dfrac{2}{7}$, $\dfrac{4}{7}$, $\dfrac{4}{9}$, $\dfrac{2}{3}$ and $\dfrac{4}{5}$.

(1) $\dfrac{2}{7}$;   (2) $\dfrac{4}{7}$;

(3) $\dfrac{4}{9}$;   (4) $\dfrac{2}{3}$;

(5) $\dfrac{4}{5}$

Answer: ____

19. The three warehouses have a total of 9800 items. The number of items in the first warehouse is 1400 less than the total number of items in the other two warehouses. The second warehouse has 200 more items than the third warehouse. How many items does the third warehouse have?
(1)   2000;   (2)   2200;
(3)   4200;   (4)   5600;
(5)   None of the above

Answer: ____

20. As shown in the figure, a large rectangle is made up of 10 identical rectangles. It is known that the length of the small rectangle is 8 cm. What is the perimeter of the large rectangle?
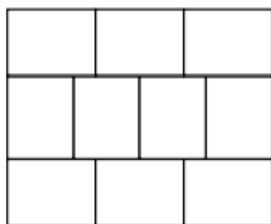
(1)   72;   (2)   84;
(3)   88;   (4)   96;
(5)   None of the above

Answer: ____

21. The weight of a cow is equal to the weight of a rabbit and a pig. The weight of a pig is equal to the weight of a rabbit and two ducks. The weight of a rabbit is equal to the weight of three ducks. How many ducks are the same as the weight of a cow?
(1)   5;   (2)   6;
(3)   7;   (4)   8;
(5)   None of the above

Answer: ____

22. There are 40 consecutive natural numbers, of which the largest number is 4 times the smallest number. What is the sum of the largest number and the smallest number?
(1)   52;   (2)   60;
(3)   65;   (4)   70;
(5)   None of the above

Answer: ____

23. Alex multiplies $3 \times 111 \times 21$ and Bob multiplies $37 \times N$, what is the sum of the digits of N if they get the same product?
(1)   63;   (2)   105;
(3)   111;   (4)   189;
(5)   None of the above

Answer: ____

24. In the center of the forest park, there is a round fish pond with a circumference of 32 meters. Now a poplar tree should be planted every 4 meters, and two fruit trees should be planted between every two adjacent poplar trees. How many fruit trees should be planted in total?
(1)   6;   (2)   7;
(3)   8;   (4)   9;
(5)   None of the above

Answer: ____

25. If the width of a rectangle remains unchanged and the length increases by 8 meters, the area will increase by 72 square meters; If the length is unchanged and the width is reduced by 4 meters, the area will be reduced by 48 square meters. What is the original area of the rectangle? (in m^2)
(1)   32;   (2)   72;
(3)   96;   (4)   120;
(5)   None of the above

Answer: ____

Section B
Answer the following questions in the space provided.

26. Find the value of $26 \times 5 \times 8 \times 125$.

Answer: ____

27. Find the value of $1 \div (2 \div 3) \div (3 \div 4) \div (4 \div 5) \div (5 \div 6)$.

Answer: ____

28. Find the value of $74 \div 25 + 26 \div 25$.

Answer: ____

29. Find the value of $1 - 2 - 3 + 4 + 5 - 6 - 7 + 8 + 9 - 10 - 11 + 12 + \cdots + 97 - 98 - 99 + 100$.

Answer: ____

30. Find the value of $(2 \times 3 \times 5 \times 7 \times 11 \times 13 \times 17 \times 19) \div (38 \times 51 \times 65 \times 77)$.

Answer: ____

31. Find the value of $1 \div 51 + 2 \div 51 + 3 \div 51 + \cdots + 49 \div 51 + 50 \div 51$.

Answer: ____

32. For the two bookshelves A and B, if 30 books are taken from bookshelf A and put into bookshelf B, there are the same number of books on the two bookshelves; If 30 books are taken from bookshelf B and put them in bookshelf A, the number of books on bookshelf A is three times that of bookshelf B. How many books did bookshelf A originally have?

Answer: ____

33. There are two whole numbers A and B, and A is 5 times as big as B. If A increases by 16 and B increases by 32, then A is three times as big as B. Find the value of A?

Answer: ____

34. There are many chickens and ducks on a farm. Given that there are 24 chickens and the number of chickens is $\frac{3}{5}$ that of ducks. How many ducks are there on the farm.

Answer: ____

35. It takes 300 digits to page a book. How many pages are there in this book?

Answer: ____

36. There is a whole number A. Add 10, multiply 10, subtract 10, and divide by 10 successively, the result is 10. Find the value of A.

Answer: ____

37. Give 140 fish to 100 cats. Each big cat gets 3 fish and each kitten gets 1 fish. How many kittens are there?

Answer: ____

38. There are 20 questions in the math competition. 5 points will be given if he gets it right, and 3 points will be deducted if he doesn't do it or makes a mistake. Allen got 60 points. How many questions did he get right?

Answer: ____

39. If five students plant 100 trees in two hours, how many trees will one student plant in one hour?
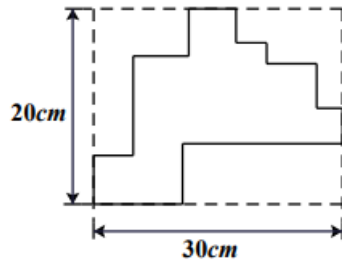
Answer: ____

40. Allen played a game with Cindy. They arranged the black and white balls according to the following rules:

● ● ○ ● ● ○ ● ● ○ · · · · · ·

How many black balls are there in the first 200 balls?
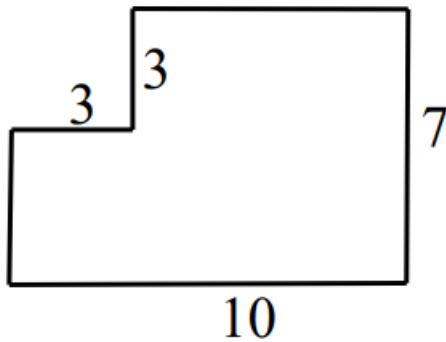
Answer: _____

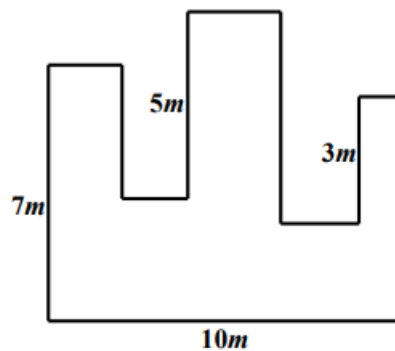41. Find the perimeter of the following figure.

20cm

30cm

Answer: _____

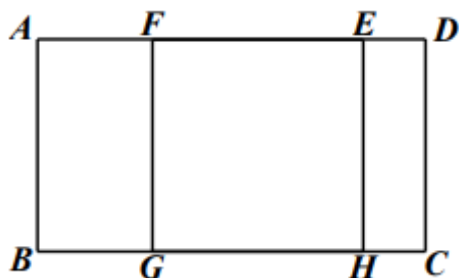42. What is the area of the following figure?

3

3

7

10

Answer: _____

43. Find the perimeter of the following figure (in m).

5m

3m

7m

10m

Answer: _____

44. As shown in the figure, given that the quadrilateral *EFGH* is a square, *AE* = 20, *CG* = 17, what is the perimeter of the rectangal *ABCD*?

Answer: ____

45. In the following vertical formula, the same figure represents the same number, and different figures represent different numbers. According to this vertical formula.
Find the value of □ + ○ + △ + ☆ .

Answer: ____

46. There are 35 children in the class, of whom 19 have participated in the Chinese interest group, 21 have participated in the mathematics interest group, and 10 have not participated in any groups. How many people have participated in both interest groups?
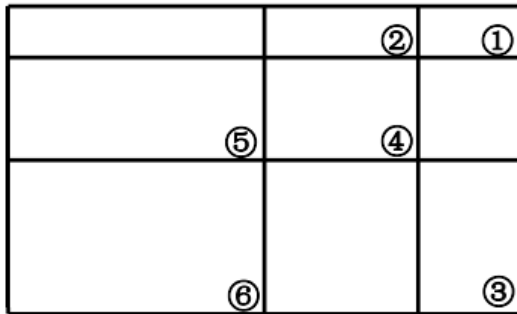
Answer: ____

47. Alex has 14 candies. He eats at least 2 and at most 6 candies every day. He eats them in three days. How many ways to eat are there?

Answer: ____

48. There are 600 apples in the fruit store. Five-twelfths of them were sold on the first day, and one third of them were sold on the second day. How many apples are left?

Answer: ____

49. As shown in the figure, nine small rectangles form a large rectangle. According to the number in the figure, the area of rectangle ① is 2 cm², rectangle ② is 4 cm², rectangle ③ is 6 cm², rectangle ④ is 8 cm², and rectangle ⑤ is 10 cm². What is the area of rectangle ⑥ (in cm²)?

	②	①
⑤	④	
⑥		③

Answer: ____

50. A fish tank is connected to three taps. Tap A can fill the tank in 2 hours. Tap B can fill the tank in 3 hours. Tap C can drain the tank in 6 hours. If all three taps are turned on at the same time, how long would it take to fill the empty fish tank?

Answer: ____