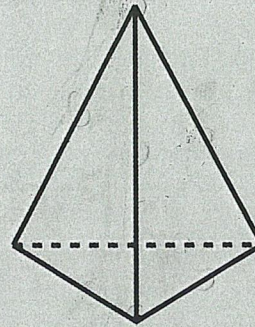


1.  $2 + 0 + 1 + 9 = ?$

- A) 9
- B) 10
- C) 11
- D) 12
- E) 13

2. The base of the pyramid on the right is a triangle. The sum of its edges and vertices is  $(6 + 4)10$ . What is the sum of the edges and vertices of a pyramid whose base is a square?

- A) 11
- B) 12
- C) 13
- D) 14
- E) 15



3. The missing number in the equation:  $6 \times 6 = 4 \times ?$  is

- A) 8
- B) 9
- C) 10
- D) 5
- E) 7

4. The sum of  $8 + 50 + 300 + 7\,000$  is

- A) 7 358
- B) 7 558
- C) 7 658
- D) 7 638
- E) 7 458

5. The value of  $(15 \div 5) \times (15 - 8)$  is a multiple of

- A) 2
- B) 3
- C) 4
- D) 5
- E) 6

6. Which of the following will not yield a result that is a natural number?

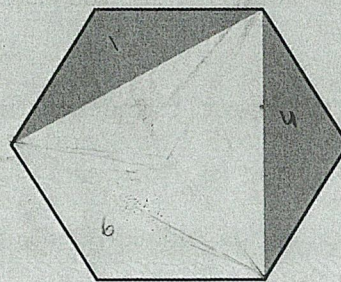
- A)  $10 \div 2$
- B)  $10 - 2$
- C)  $5 \div 3$
- D)  $5 \times 3$
- E)  $10 \times 2$

7. 50 nickels = ? quarters.

- A) 15
- B) 40
- C) 25
- D) 20
- E) 10

8. What fraction of the hexagon is shaded?

- A)  $1/6$
- B)  $1/5$
- C)  $1/4$
- D)  $1/3$
- E)  $1/2$



9. A natural number is multiplied by 8. The result could not be

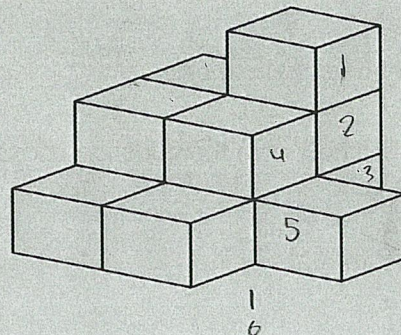
- A) 112
- B) 84
- C) 88
- D) 32
- E) 56

10. Which of the following is 5 less than the number that is 3 more than 100?

- A) 99
- B) 95
- C) 96
- D) 97
- E) 98

11. How many blocks are there in the pile?

- A) 10
- B) 11
- C) 12
- D) 13
- E) 14



12. If the last day of January is a Wednesday, then January 10 was a

- A) Wednesday    B) Thursday    C) Friday    D) Saturday    E) Sunday

13. Mathew is 5 years older than Mathilda. If Mathew is 13 years old, Mathilda is

- A) 7 years old    B) 8 years old    C) 9 years old    D) 6 years old    E) 5 years old

14. When half of 100 is multiplied by one third of 12, the result is

- A) 50    B) 100    C) 150    D) 200    E) 40

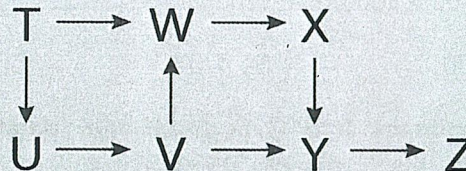
15. I am an even number smaller than 70. The sum of my digits is <sup>12</sup>13. What is their product?

- A) 42    B) 36    C) 48    D) 50    E) 40

16. 100 dm = ? m

- A) 100    B) 20    C) 5  
D) 10    E) 1

17. T, U, V, W, X, Y, and Z are players that participated in a chess tournament.  $T \rightarrow U$  means that T has won a game against U. How many players have won 2 games?



- A) 0    B) 1    C) 2    D) 3    E) 4

18. 10 hundreds + 10 tens + 10 ones = ?

- A) 1 210    B) 910    C) 10 010    D) 1 010    E) 1 110

19. A 2-digit natural number is multiplied by a 3-digit natural number. The product could be a natural number that has

- A) 4 digits    B) 6 digits    C) 3 digits    D) 7 digits    E) 9 digits

20. Which of the following expressions is the smallest?

- A) 3!    B) 4!    C) 5!    D) 2!!!    E) 6!

21. A jar is full of old pennies, nickels, dimes, and quarters. Andrea removes 8 coins having a total value of 84¢. How many nickels did she remove?

- A) 0    B) 1    C) 2    D) 3    E) 4

22. The division below shows that when a 3-digit number 37M is divided by 2, the result is another 3-digit number 1N8. The value of  $M + N$  is equal to

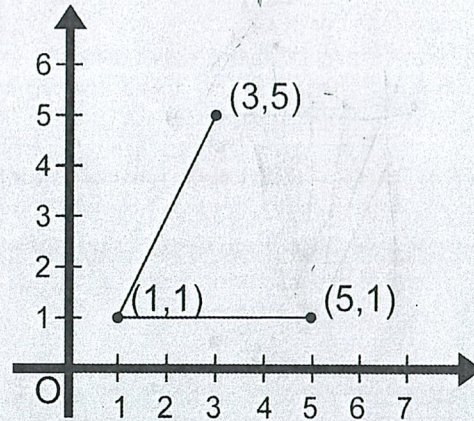
$$37M \div 2 = 1N8$$

- A) 10    B) 11    C) 12    D) 13    E) 14



32. Points (1, 1), (5, 1), and (3, 5) are three vertices of a parallelogram. What are the coordinates of the fourth vertex?

- A) (5, 7)      B) (7, 5)      C) (7, 6)  
D) (5, 6)      E) (7, 9)



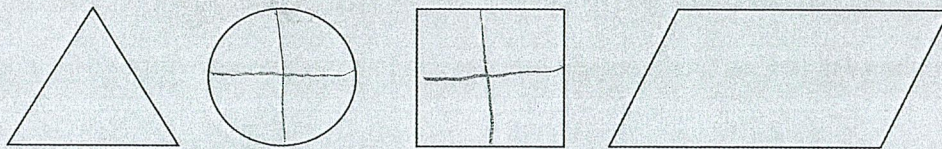
33. What number, when multiplied by itself, is equal to 1 521?

- A) 49      B) 41      C) 43  
D) 51      E) 39

34. How many common factors do 12 and 42 have?

- A) 1      B) 2      C) 3  
D) 4      E) 5

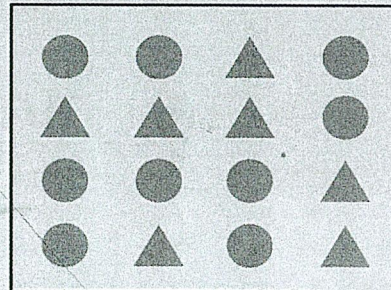
35. How many of the geometrical figures shown below (equilateral triangle, circle, square, and parallelogram) have at least 1 line of symmetry?



- A) 0      B) 1      C) 2      D) 3      E) 4

36. Paper circles and triangles are on a table. How many paper triangles must be removed so that the paper triangles represent one quarter of the geometric figures left on the table?

- A) 4      B) 3      C) 5  
D) 2      E) 6



37. The unit's digit of the product  $7 \times 7 \times 7 \times 7$  is

- A) 7      B) 9      C) 1  
D) 5      E) 3

38. The mass of a very large marine rock is estimated to be 10 000 000 kg. Due to climatic conditions, the rock loses 1 000 kg per year. In how many years will it lose 1% of its mass?

- A) 10 years      B) 20 years      C) 50 years      D) 80 years      E) 100 years

39. Mathew is standing on the middle step of a staircase. He climbs up 5 steps, then climbs down 6 steps, and finally climbs up 8 steps to the top of the staircase. How many steps does this staircase have?

- A) 14      B) 15      C) 13      D) 17      E) 16