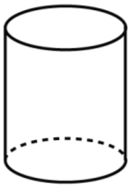
Mathematica Centrum
Together, let's shape the mathematicians of the future

BYRON-GERMAIN PREPARATORY TEST 2025

1. Which solid has 6 edges, 4 vertices, and 4 faces?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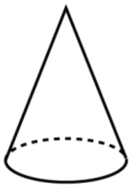
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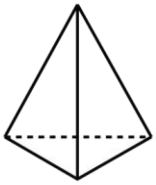
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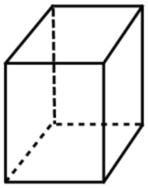
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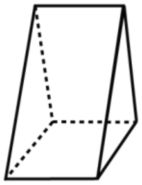

E

2. The product of 2 x 3 x 7 is

A) 30　B) 20　C) 40　D) 42　E) 35

3. What number is 8 less than the number that is 8 more than 10?

A) 40　B) 0　C) 20　D) 30　E) 10

4. The number of sides of a pentagon multiplied by the number of sides of an octagon is equal to

A) 32　B) 48　C) 42　D) 40　E) 14

5. The double of one-quarter of the quadruple of 32 is equal to

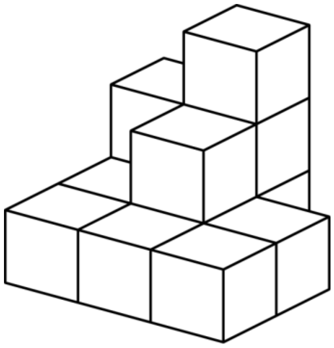
A) 64　B) 57　C) 67　D) 62　E) 76

6. The tens digit of the product of 50 x 18 is

A) 1　B) 0　C) 2
D) 4　E) 9

7. How many blocks are there in the pile shown?

A) 11　B) 12　C) 13
D) 14　E) 15



8. The value of X in the equation: 10 - X = 1 + 3 is

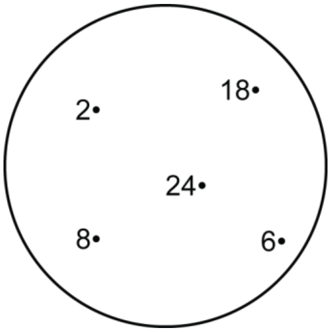
A) 3　B) 4　C) 5　D) 2　E) 6

9. How many numbers between 30 and 60 are multiples of 4?

A) 7 B) 8 C) 9
D) 10 E) 11

10. How many elements of the set represented in the diagram are divisors of 48?

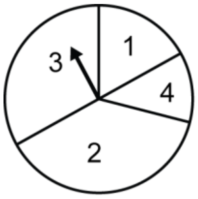
A) 1 B) 2 C) 3
D) 4 E) 5



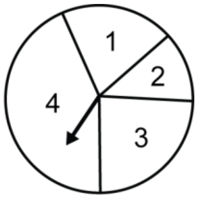
11. The 12th term in the sequence: 0, 3, 6, 9, 12, ... is

A) 24 B) 36 C) 33 D) 18 E) 30

12. Which spinner would you choose to increase your chances of getting a 2 or 4?



A



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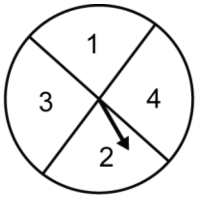

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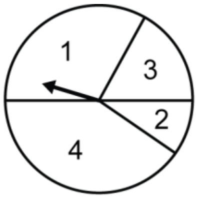

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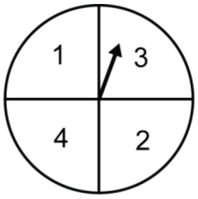
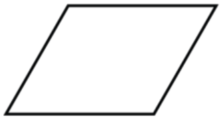


E

13. Which of the figures below has two axes of symmetry?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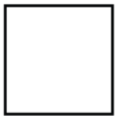
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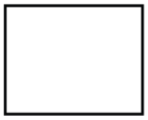
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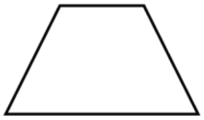
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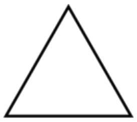

E

14. If you write all the natural numbers between 0 and 40, how many times will you use the digit 3?

A) 14 times B) 15 times C) 16 times D) 13 times E) 12 times

15. A package of 600 sheets of paper is 54 millimeters thick. How thick is a pack of 500 sheets of the same paper?

A) 42 mm B) 44 mm C) 46 mm D) 48 mm E) 45 mm

16. It is 6:34. What time will it be in 290 minutes?

A) 10:54 B) 9:54 C) 10:44 D) 11:24 E) 11:54

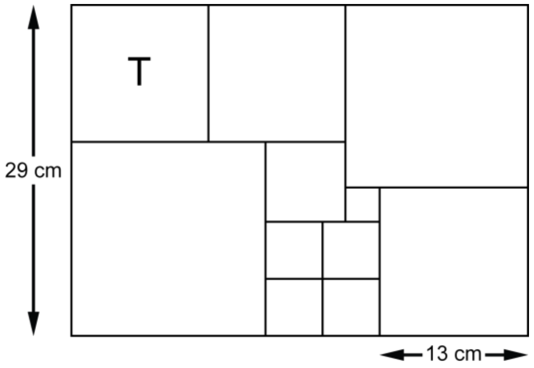
17. There are 30 class groups in Theo's school. Each class group can have a minimum of 25 students and a maximum of 30 students. The difference between the maximum and minimum number of students who could be enrolled in this school is

A) 130 B) 120 C) 145 D) 135 E) 150

18. The sum of 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 is divisible by

A) 5 B) 6 C) 7 D) 8 E) 10

19. Theo used square tiles to completely cover a rectangular surface. Using the measures given in the diagram, find the perimeter of tile T. The sum of the perimeter of the tile T and the perimeter of the rectangular surface is equal to



A) 187 cm B) 186 cm C) 188 cm D) 189 cm E) 190 cm