

# Mathematica Centrum

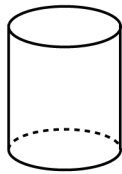
Together, let's shape the mathematicians of the future

## THALES PREPARATORY TEST 2017

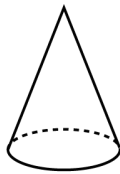
1.  $3 + 1 + 6 = ?$

- A) 6                      B) 7                      C) 8                      D) 9                      E) 10

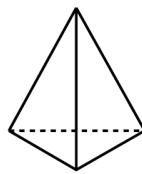
2. Which solid has 4 flat faces, 6 edges and 4 vertices?



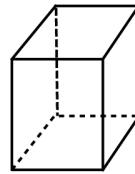
A



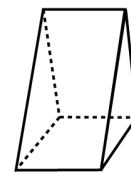
B



C



D



E

3. Which product has the smallest ones digit?

- A)  $1 \times 2 \times 3$                       B)  $3 \times 4 \times 5$                       C)  $6 \times 7 \times 8$                       D)  $7 \times 9 \times 11$                       E)  $9 \times 11 \times 13$

4.  $20 \div (7 - 5) = ?$

- A) 10                      B) 6                      C) 8                      D) 12                      E) 9

5. How many odd number are there between 19 and 31?

- A) 4                      B) 6                      C) 5                      D) 7                      E) 8

6. The value of X in the equation:  $512 = 317 + X$  is

- A) 192                      B) 193                      C) 194                      D) 195                      E) 196

7. Round 220 to the nearest hundred. The answer is

- A) 100                      B) 200                      C) 50                      D) 150                      E) 300

8. 10 nickels = ? quarters.

- A) 10                      B) 6                      C) 3                      D) 4                      E) 2

9. Andrea counted backwards from 30 by 3's. How many of the following numbers: 8, 12, 14, 21, and 27 were not counted by Andrea?

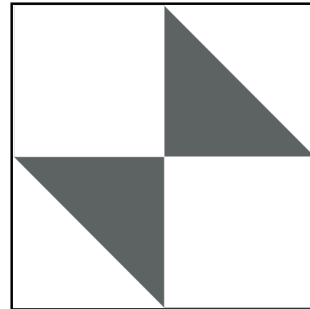
- A) 1                      B) 4                      C) 2                      D) 3                      E) 0

10. An answering machine can store 10 minutes of messages. How many 20 second messages could it store?

- A) 30                      B) 20                      C) 50  
D) 60                      E) 40

11. How many natural numbers between 7 and 77 are multiples of 7?

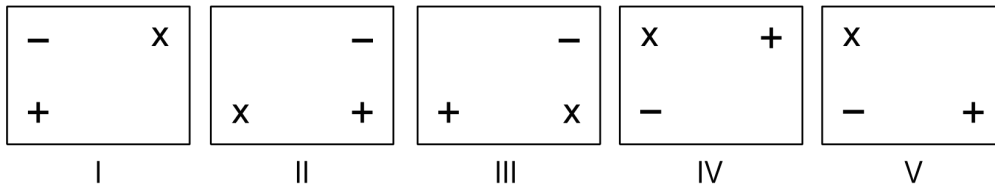
- A) 8                      B) 9                      C) 10  
D) 11                      E) 12



12. What fraction of the figure is shaded?

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

13. Which two figures are rotation images of each other?

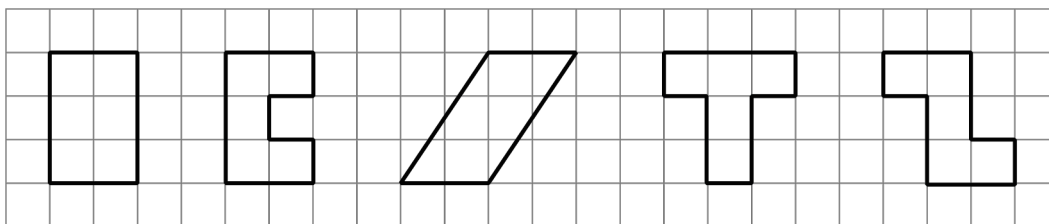


- A) II et III                      B) II et IV                      C) I et III                      D) V et IV                      E) III et IV

14. 1 dm + 2 cm is equal to

- A) 10 cm                      B) 8 cm                      C) 110 mm                      D) 12 cm                      E) 90 mm

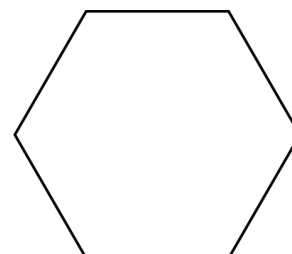
15. Given that the side of a small square is 1, how many of the following have a perimeter of 12?



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

16. The number of lines of symmetry plus the number of diagonals in the diagram opposite is equal to

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

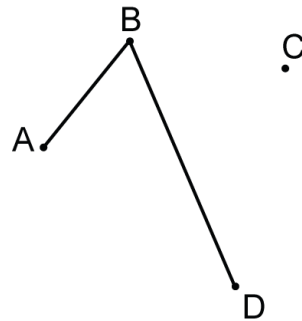


17. How many 4-digit natural numbers between 1 000 and 4 000 have the same digits as 1 234 (including 1 234)?

- A) 10                      B) 16                      C) 14  
D) 18                      E) 12

18. How many line segments (like AB and BD) can you draw using the 4 points in the diagram?

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



19. The clock shown in the diagram has just lost its minute hand. At what time, approximately, did it lose it?

- A) 10:30                      B) 10:22  
C) 10:05                      D) 10:00  
E) 10:45

