

**THE TRY OUT OF THE NATIONAL EXAMINATION
ACADEMIC YEAR 2011 / 2012**

Subject : Mathematics
Grade : IX (nine)
Day / Date : Monday / April 30 2012
Time : 120 minutes

1. The result of $7 + (-3) - [54 : (-2)]$ is ...
 - A. -31
 - B. -23
 - C. 23
 - D. 31
2. A mathematics test has 40 problems. Each correct answer is scored 3. Each wrong answer is scored -1. No answer is scored 0. Ani joins this test. She answer 29 problem correctly, leaves 4 problems blank and fails to provide correct answer to the remaining problems of the test. So Ani's score is ...
 - A. 29
 - B. 80
 - C. 87
 - D. 91
3. If $a = 1\frac{1}{2}$, $b = 2\frac{1}{3}$, and $c = 3\frac{2}{3}$ then the value of $a + b - c = \dots$
 - A. $3\frac{5}{6}$
 - B. $1\frac{1}{6}$
 - C. $\frac{1}{3}$
 - D. $\frac{1}{6}$
4. A car needs 2.5 litres to go through 30 km, so for distance 66 km the car needed ...
 - A. 3.5 litres
 - B. 4.5 litres
 - C. 5.5 litres
 - D. 6.5 litres
5. A project can be done in 24 hours by using 3 machines. If the total machines become 4, it can be done in...
 - A. 15 hours
 - B. 16 hours
 - C. 17 hours
 - D. 18 hours
6. The sale price of 6 kg sugar cane with the profit of 10% is Rp. 75,900.00. The buying price of one kg sugar cane is ...
 - A. Rp. 11,000.00
 - B. Rp. 11,500.00
 - C. Rp. 12,000.00
 - D. Rp. 12,500.00
7. Ana saves Rp. 2,000,000.00 in a bank at 8% interest per year. The total Ana's money after 3 years is ...
 - A. Rp. 160,000.00
 - B. Rp. 480,000.00
 - C. Rp. 2,160,000.00
 - D. Rp. 2,480,000.00
8. The 211th terms of pattern : 3 , 8 , 13 , 18 , ... is ...
 - A. 1053
 - B. 1063
 - C. 2053
 - D. 2063
9. The product of $(3x + 4)(2x - 5)$ is ...

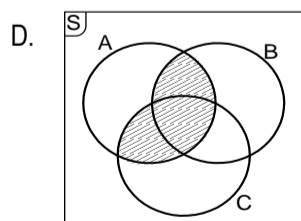
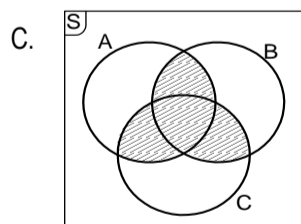
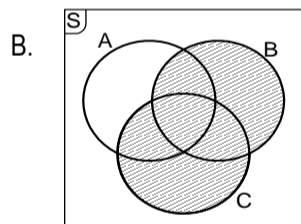
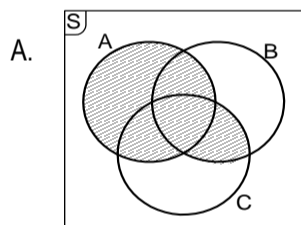
- A. $6x^2 - x - 20$
 B. $6x^2 - 7x - 20$
 C. $6x^2 + 7x - 20$
 D. $6x^2 - 15x - 20$
10. The result of $(5a^2b - 2ab^2 + 4ab) - (3a^2b - 4ab - 3ab^2)$ is
 A. $2a^2b + 6ab^2 + 7ab$
 B. $2a^2b - ab^2 + 8ab$
 C. $2a^2b + ab^2 + 8ab$
 D. $2a^2b + ab^2 - 8ab$

11. The simplest form of $\frac{4x^2 - 11x + 6}{9 - 16x^2}$ is

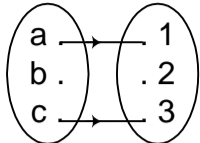
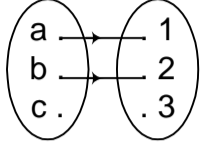
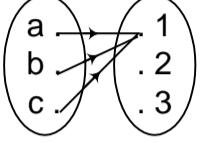
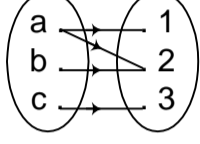
- A. $\frac{2 - x}{3 + 4x}$
 B. $\frac{3 + 4x}{2 + x}$
 C. $\frac{4x - 3}{x + 2}$
 D. $\frac{4x - 3}{x - 1}$

12. The solution of $-3(2x - 10) = 2(5 - 2x)$ is
 A. $x = -20$
 B. $x = -10$
 C. $x = 10$
 D. $x = 20$

13. The Venn diagram of $A \cap (B \cup C)$ is

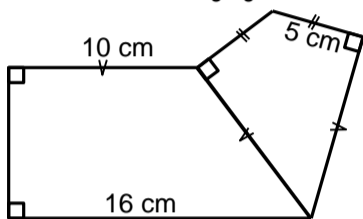


14. From 40 people, there are 15 like football, 17 like badminton, 20 like tennis, 5 like football and badminton, 7 like badminton and tennis, 4 like football and tennis, and 2 like all. The number of people dislike all is
 A. 2
 B. 3

- C. 5
D. 12
15. Among the following arrow diagrams, which one is a function?
- A. 
- B. 
- C. 
- D. 
16. Given that the function $g(x) = x^2 + 3x - 12$ then value of $g(-2)$ is
- A. -22
B. -18
C. -16
D. -14
17. The gradient of a line which passes through points $(2, -3)$ and $(-5, 8)$ is
- A. $-\frac{11}{7}$
B. $-\frac{7}{11}$
C. $\frac{7}{11}$
D. $\frac{11}{7}$
18. A line k passes through of points $(1, -2)$ and $(-3, 4)$. A line m passes through point $(3, 5)$ and perpendicular to line k . The line m is
- A. $2x + 3y + 9 = 0$
B. $2x - 3y + 9 = 0$
C. $2x + 3y - 9 = 0$
D. $2x - 3y - 9 = 0$
19. The solutions of linear equation system $4x - 3y = 23$ and $6x + 4y = -8$ are a and b . So $3a - b = \dots$.
- A. 22
B. 11
C. 9
D. 7
20. The price of 3 clothes and 2 shirts is Rp. 280,000.00, while the price of 1 clothes and 3 shirt is Rp. 210,000.00, hence amounts the price of 6 clothes and 6 shirts is
- A. Rp. 330,000.00
B. Rp. 460,000.00
C. Rp. 580,000.00
D. Rp. 660,000.00
21. Among of the following triangels, which one is a right triangle?
- A. ΔABC with $AB = 3$ cm, $BC = 7$ cm, and $AC = \sqrt{59}$ cm
B. ΔDEF with $DE = 5$ cm, $EF = 9$ cm, and $DF = \sqrt{105}$ cm

- C. $\triangle JKL$ with $JK = \sqrt{2}$ cm, $KL = \sqrt{17}$ cm, and $JL = \sqrt{20}$ cm
 D. $\triangle PQR$ with $PQ = 5$ cm, $QR = \sqrt{15}$ cm, and $PR = 2\sqrt{10}$ cm
22. The measurement edges of a cuboid are 8 cm, 4 cm, and 6 cm. The length of the space diagonal is
 A. $2\sqrt{13}$ cm
 B. $4\sqrt{5}$ cm
 C. 10 cm
 D. $2\sqrt{29}$ cm
23. The area of a rhombus 240 cm^2 and the measurement of one of the diagonals is 30 cm. The perimeter of rhombus is
 A. 68 cm
 B. 64 cm
 C. 17 cm
 D. 16 cm

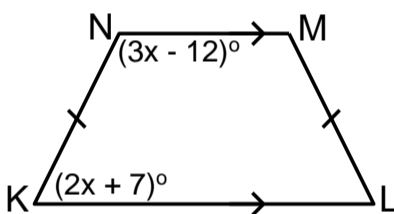
24. Look at the following figure.



The figure consist of the kite and the trapezoid. The area of the figure is

- A. 185 cm^2
 B. 178 cm^2
 C. 154 cm^2
 D. 103 cm^2
25. The size of the floor is 12 m X 9 m. The floor will be tessellated by using the tiles with the size 30 cm X 30 cm. The price of a tile is Rp. 2,600.00, so the total price is
 A. Rp. 2,310,000.00
 B. Rp. 2,630,000.00
 C. Rp. 3,120,000.00
 D. Rp. 3,360,000.00

26. Look at the figure bellow.

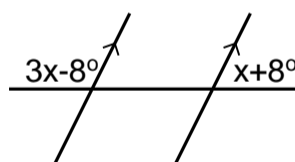


KLMN is an isosceles trapezoid.

The measurement of $\angle K$ is

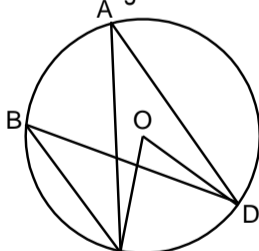
- A. 98°
 B. 81°
 C. 74°
 D. 37°

27. The value of x on this figure is



- A. 36°
 B. 40°
 C. 43°
 D. 45°

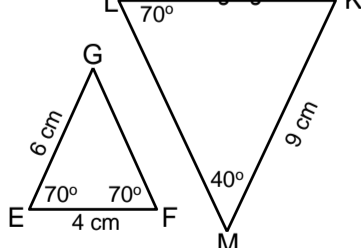
28. Look at the figure below.



If $\angle CBD = 40^\circ$, so the measure of $\angle CAD$ and $\angle COD$ are

- A. 30° and 60°
 B. 30° and 140°
 C. 40° and 80°
 D. 40° and 140°

29. Consider the following figure.



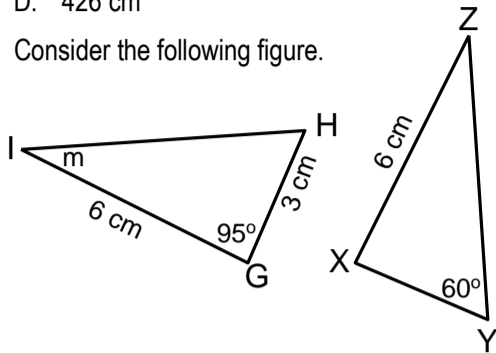
Let $\triangle EFG$ and $\triangle KLM$ are similar.

The length of KL is

- A. 6 cm
 B. 8 cm
 C. 14 cm
 D. 15 cm

30. The height of Afa is 126 cm and the length of her shadow is 189 cm. In the same time, the length of tree's shadow is 936 cm. So the height of tree is
- A. 642 cm
 - B. 624 cm
 - C. 462 cm
 - D. 426 cm

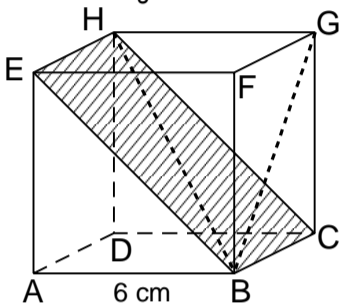
31. Consider the following figure.



ΔGHI and ΔXYZ are congruent. The value of m is

- A. 60°
- B. 45°
- C. 35°
- D. 25°

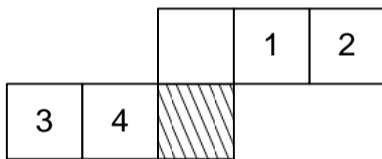
32. Look at the figure cube below.



The area of diagonal plane BCHE is

- A. 216 cm^2
- B. $36\sqrt{2} \text{ cm}^2$
- C. $6\sqrt{3} \text{ cm}^2$
- D. $6\sqrt{2} \text{ cm}^2$

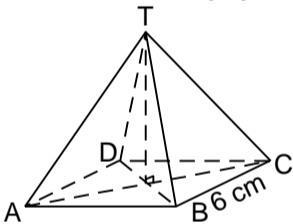
33. Look at the following net of cube.



If the shaded square is the base of cube, so the top shown by

- A. number 1
- B. number 2
- C. number 3
- D. number 4

34. Look at the following figure.

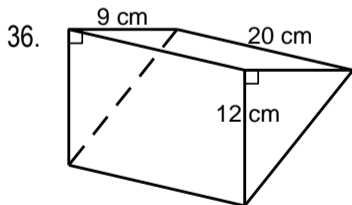


Given the total surface area of T.ABCD is 96 cm^2 . The measurement of $AB = BC = 6 \text{ cm}$, then the volume is

- A. 48 cm^3
- B. 60 cm^3
- C. 96 cm^3
- D. 120 cm^3

35. The lateral area of cylinder is 471 cm^2 and its altitude is 15 cm. The radius of cylinder is ($\pi = 3.14$)

- A. 15 cm
- B. 14 cm
- C. 7 cm
- D. 5 cm



The base of triangular prism is a right triangle.

The measurement of the legs of base are 9 cm and 12 cm.

The altitude of prism is 20 cm, then the total surface area of prism is

- A. $2,160 \text{ cm}^2$
- B. $1,620 \text{ cm}^2$
- C. 828 cm^2
- D. 720 cm^2

37. Given the cone with circumference of the base is 132 cm, and the slant height is 25 cm. The total surface area of the cone is

- A. $3,300 \text{ cm}^2$
- B. $3,036 \text{ cm}^2$
- C. $1,100 \text{ cm}^2$
- D. $1,012 \text{ cm}^2$

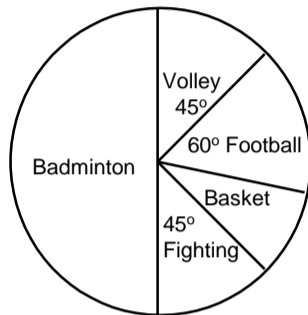
38. Look at the data of the student's age below :

Ages	12	13	14	15	16
Students	2	3	2	2	1

The median of the data is

- A. 13.0
 B. 13.5
 C. 14.0
 D. 14.5
39. The group consist of 21 boys and 29 girls. They submit some story books. The mean of the boys is 62 books and 68 books for girls. The total mean of the group is
- A. 65.48 books
 B. 66.48 books
 C. 66.50 books
 D. 67.23 books

- 40.



The diagram represents the hobbies of 1,200 students. The number of students who likes basket ball is

- A. 30
 B. 80
 C. 100
 D. 120
41. The solution set of : $\frac{x+3}{3} - \frac{2x-3}{2} \leq \frac{2}{3}$ is
- A. $\{x \mid x \leq \frac{11}{4}, x \in \mathbb{R}\}$
 B. $\{x \mid x \geq \frac{11}{4}, x \in \mathbb{R}\}$
 C. $\{x \mid x \leq \frac{11}{6}, x \in \mathbb{R}\}$
 D. $\{x \mid x \geq \frac{11}{6}, x \in \mathbb{R}\}$
42. A school librarian states estimate that there are at least 95 textbooks and story books. The number of the story books is $\frac{1}{2}$ of the number of the textbooks. The number of the textbooks in the shelf at least... .
- A. 61
 B. 62
 C. 63
 D. 64
43. A coin and a dice were tossed once simultaneously. The number of the sample space is
- A. 6
 B. 8
 C. 12
 D. 36
44. Jauza throws a dice 300 times. The expected frequency occurrence prime spot number is
- A. 150 times
 B. 125 times
 C. 100 times
 D. 75 times
45. The result of : $\left(\frac{1}{64}\right)^{\frac{5}{6}}$ is



- A. $\frac{1}{6}$
- B. $\frac{1}{4}$
- C. 2
- D. 32

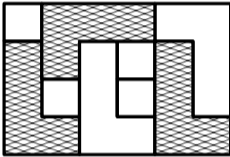
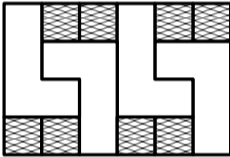
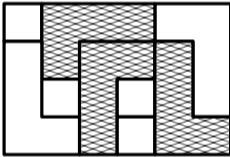
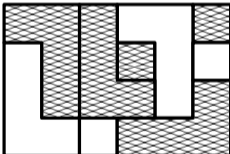
46. The result of : $\frac{3\sqrt{5} \times 5\sqrt{5}}{5^2}$ is

- A. 3
- B. 5
- C. 10
- D. 25

47. The first term of a geometric sequence is 3, and the 9th term is 768. The 5th term is

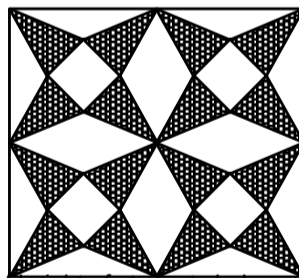
- A. 24
- B. 36
- C. 48
- D. 96

48. Given two shapes  and 
The tiling that is constructed from both shapes above is

- A. 
- B. 
- C. 
- D. 

49. Consider of the figure beside.
The tessellation is constructed of

- A. triangles, rhombuses, rectangles
- B. triangles, rhombuses, squares
- C. triangles, kites, parallelograms
- D. triangles, rectangles, parallelograms



50. Look at the "Steam-and-Leaf" diagram of height of students below.

Steam	Leaf
15	9
16	2, 8, 9
17	3, 3, 4, 6
18	1, 2, 3

The mode of data is

- A. 3
- B. 9
- C. 17
- D. 173

—do the best—

