ADDIS ABABA CITY ADMINISTRATION EDUCATION BUREAU
MIDDLE SCHOOL (grade 8) LEAVING CERTIFICATE EXAMINATIONS
SENE 2016 E.C/ JUNE 2024 G.C

GENERAL DIRECTIONS

THIS BOOKLET CONTAINS TWO EXAMINATIONS: **CITIZENSHIP EXAMINATION, AND MATHEMATICS** EACH EXAMINATION IS TO BE DONE ON A SEPARATE ANSWER SHEET. THE TIME ALLOWED FOR EACH EXAMINATION IS EXACTLY **1 HOUR.**

THE FIRST PART IS **CITIZENSHIP EXAMINATION,** WHICH CONTAINS **60 ITEMS** AND THE SECOND PART IS **MATHEMATICS EXAMINATION,** WHICH CONTAINS **40 ITEMS.**

EACH QUESTION HAS FOUR CHOICES MARKED A, B, C, AND D. READ EACH QUESTION AND THE CHOICES CAREFULLY. THEN MARK YOUR CHOICE ON **THE SEPARATE ANSWER SHEET** YOU ARE PROVIDED.

USE ONLY PENCIL TO MARK YOUR ANSWERS. YOUR ANSWER MARK SHOULD BE HEAVY AND DARK THAT COVERS THE SPACE COMPLETELY. PLEASE ERASE ALL UNNECESSARY PENCIL MARKS COMPLETELY FROM YOUR ANSWER SHEET. IF YOU CHOOSE CHOICE "C", FOR EXAMPLE, MARK THE THIRD SPACE LIKE THE FOLLOWING:

A	B	C	D
○	○	●	○

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY GO BACK AND REVIEW YOUR WORK. WHEN TIME IS CALLED, YOU MUST IMMEDIATELY STOP WORKING, LAY YOUR PENCIL DOWN, AND WAIT FOR FURTHER INSTRUCTIONS.

ANY FORM OF CHEATING OR AN ATTEMPT TO CHEAT IN THE EXAMINATION WILL RESULT IN AN AUTOMATIC DISMISSAL FROM THE EXAMINATION HALL AND CANCELLATION OF YOUR SCORE(S).

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO!

LIVEWORKSHEETS

Number of items 40 **time allowed 1:00 hour**

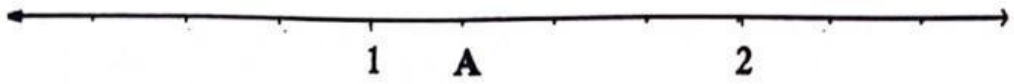
Instruction: read each question and choose carefully. Then mark your choice on separate answer sheet

1. The number 0.15 is equal to

A. $\frac{15}{10}$ C. $\frac{3}{20}$

B. $\frac{5}{20}$ D. $\frac{100}{15}$

2. The point A on the number line is equal to



A. 1.1 C. $\frac{3}{2}$

B. $\frac{5}{4}$ D. $\frac{5}{2}$

3. Which one of the following relation is **NOT** true about Z, W, N, Q

A. $W \subseteq Z$ C. $Q \subseteq Z$

B. $W \subseteq Q$ D. $N \subseteq Q$

4. Which one of the following list of numbers are in ascending order?

A. $\frac{2}{3}, \frac{4}{9}, \frac{7}{12}$ C. $\frac{4}{9}, \frac{7}{12}, \frac{2}{3}$

B. $\frac{4}{9}, \frac{2}{3}, \frac{7}{12}$ D. $\frac{4}{9}, \frac{7}{12}, \frac{2}{3}$

5. $-\frac{3}{4}+\frac{7}{8}$ is equal to

A. $\frac{1}{8}$ C. $\frac{5}{6}$

B. $\frac{13}{8}$ D. $\frac{7}{4}$

LIVEWORKSHEETS

6. $2\frac{2}{3} \times \frac{3}{4} =$

A. 1

B. 2

C. $\frac{1}{2}$

D. $\frac{1}{4}$

7. $\frac{5}{12} \div \frac{2}{3} =$

A. $\frac{5}{4}$

B. $\frac{1}{18}$

C. $\frac{3}{8}$

D. $\frac{5}{8}$

8. A man invested 1500 birr in a Bank which pays 8% simple interest per annum. What is the interest of the investment in 9 months?

A. 60 birr

B. 72 birr

C. 90 birr

D. 96 birr

9. $\left(-\frac{2}{5}\right)^2$ is equal to

A. $-\frac{4}{25}$

B. $-\frac{2}{25}$

C. $\frac{2}{25}$

D. $\frac{4}{25}$

10. $\sqrt{0.0256}$ is equal to

A. 0.16

B. 0.016

C. 0.54

D. 0.054

LIVEWORKSHEETS

11. Table below yields the value $y = x^2$, $1 \le x \le 1.49$

By using the table $\sqrt{1.638}$ is equal to

X	0	1	2	3	4	5	6	7	8	9
1.0	1.000	1.020	1.040	1.061	1.082	1.102	1.124	1.145	1.166	1.188
1.1	1.210	1.232	1.254	1.277	1.277	1.322	1.346	1.369	1.392	1.416
1.2	1.440	1.464	1.488	1.513	1.538	1.562	1.588	1.613	1.638	1.644
1.3	1.690	1.716	1.742	1.769	1.796	1.822	1.855	1.877	1.904	1.932
1.4	1.960	1.988	2.016	2.045	2.074	2.102	2.132	2.161	1.190	2.220
1.5	2.250	2.280	2.316	2.341	2.341	2.102	2.434	2.465	2.496	2.528
1.6	2.56	2.592	2.310	2,657	2.722	2.76	2.756	2.789	2.822	2.856

A. 1.18 C. 1:23

B. 1.28 D. 2.47

12. The number 0.3^3 is equal to

A. 0.27 C. 0.9

B. 0.027 D. 0.0009

13. $\sqrt[3]{-512}$ is equal to

A. -6 C. 7

B. -8 D. 8

14. If the volume of a cube is $343cm^3$, then the area of the base of the cube is

A. $7cm^2$ C. $49cm^2$

B. $14cm^2$ D. $64cm^3$

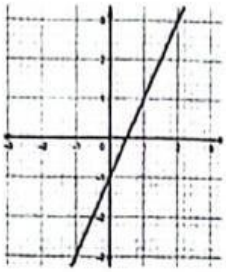
15. In which quadrants the point (2,-3) lies?

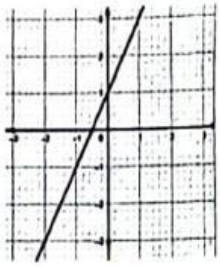
A. I quadrant C. III quadrant

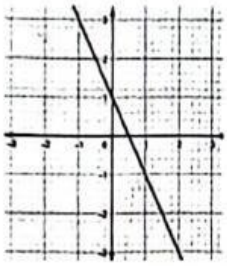
B. II quadrant D. IV quadrant

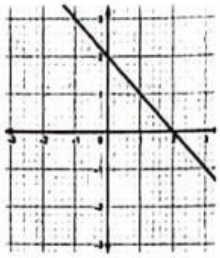
LIVEWORKSHEETS

16. Which one of the following graphs is the graph of $y = 2x - 1$?

A. 

C. 

B. 

D. 

17. What is the solution set of $\frac{5}{2}(3 - x) \geq -9$ in the set of N?

A. $\{1,2,3,4,5,6\}$

B. $\{1,2,3,4,5,6,7\}$

C. $\{7,8,9,...\}$

D. $\{6,7,8,...\}$

18. Ayelech bought 4 pens and one exercise book and paid 100 birr. If the price of the exercise book is 42 birr, then what is the price of each pen?

A. 13.50 birr

B. 14.50 birr

C. 16 birr

D. 16.50 birr

19. The sides of right angle triangle are $3x\,cm, 4x\,cm$ and $5x\,cm$. If the minimum perimeter of the triangle is $60cm$, then

A. $x \geq 4$

B. $x \geq 6$

C. $x \geq 5$

D. $x \geq 12$

LIVEWORKSHEETS

20. In Figure 1, if $\Delta ABC \sim \Delta DEF$, then $DE =$

A. 1
B. 4
C. 2
D. 8

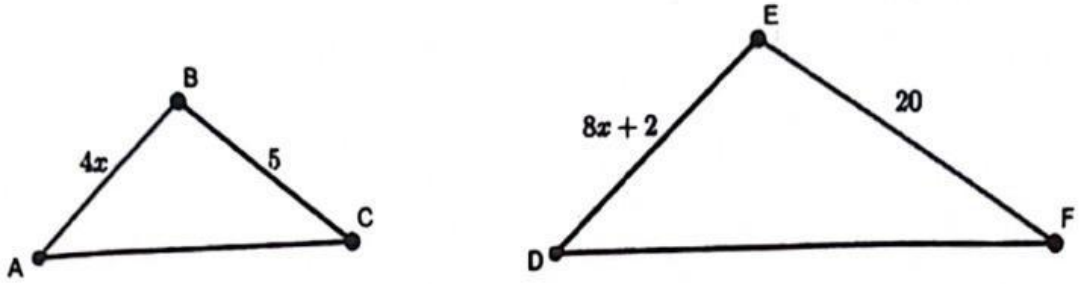


Figure 1

21. Considering Figure 2, which one of the following is necessarily true about the similarity of triangles?

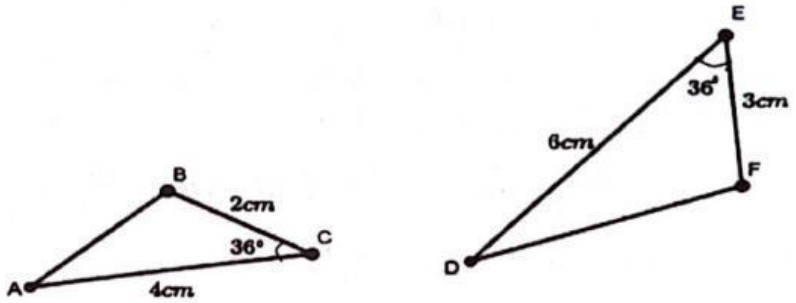


Figure 2

A. $\Delta ACB \sim \Delta DEF$
B. $\Delta BCA \sim \Delta DEF$
C. $\Delta ABC \sim \Delta DEF$
D. $\Delta ABC \sim \Delta FDE$

22. Assume $\Delta ABC \sim \Delta DEF$. If $AB = 2cm$, $DE = 5cm$ and the perimeter of ΔABC is $20cm$, then the perimeter of ΔDEF is

A. $25cm$
B. $50cm$
C. $40cm$
D. $100cm$

LIVEWORKSHEETS

23. The corresponding sides of two similar triangles are $4cm$ and $8cm$ respectively. If the area of the smaller triangle is $16cm^2$, what is the area of the larger triangle?

A. $32cm^2$
B. $72cm^2$
C. $64cm^2$
D. $128cm^2$

24. In Figure 3, $m(\angle ACB) =$ _____

A. 22.5°
B. 45°
C. 30°
D. 60°

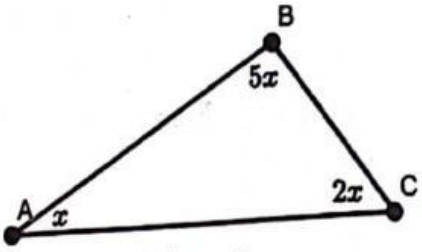
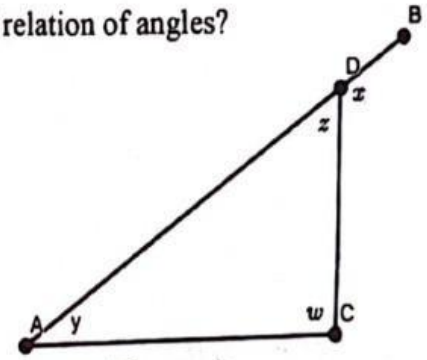


Figure 3

25. In the Figure 4, which one of the following is true about relation of angles?

A. $x = y + w$
B. $x = z + w$
C. $w = y + z$
D. $y = x + z$



Figurer 4

26. In Figure 5, ΔABC is right angled triangle, and $\overline{CD}$ is perpendicular to $\overline{AB}$. Then the length of AB is

A. $2cm$
B. $5cm$
C. $4cm$
D. $3cm$

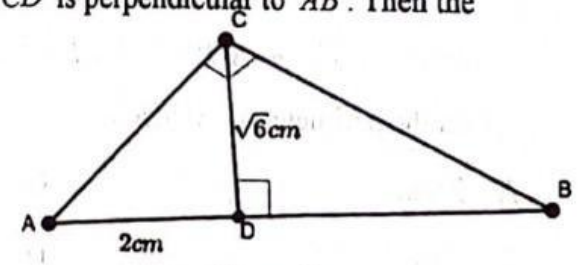


Figure 5

27. Which one of the following triplets are **NOT** sides of a right angle triangle?

A. $5cm, 12cm, 13cm$
B. $7cm, 24cm, 25cm$
C. $1cm, \sqrt{2}cm, 3cm$
D. $2cm, 5cm, 7cm$

LIVEWORKSHEETS

28. The shaded region in the circle shown in Figure 6 is called

A. Sector
B. Arc
C. Segment
D. Semi-circle

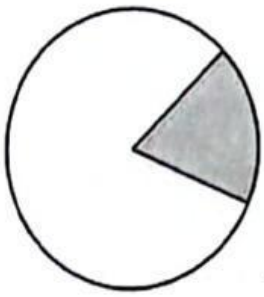


Figure 6

29. In Figure 7, which one of the following is a secant of the circle?

A. $\overline{AB}$
B. $\overline{EF}$
C. $\overline{CD}$
D. $\widehat{AKB}$

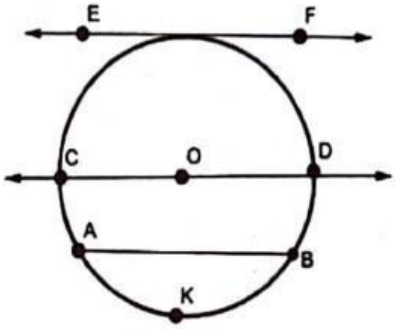


Figure 7

30. In Figure 8, if $m(\widehat{ABC}) = 250^\circ$, then $m(\angle ABC) =$

A. 250°
B. 100°
C. 60°
D. 55°

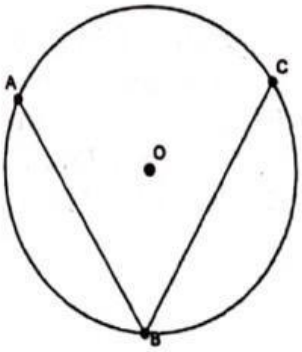


Figure 8

LIVEWORKSHEETS

31. In Figure 9, $m(\angle ABC)$ is

A. 40^0
B. 60^0
C. 80^0
D. 100^0

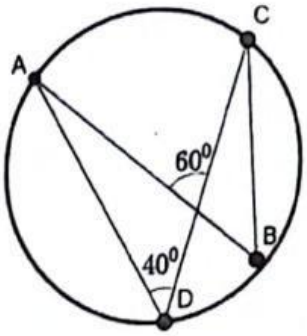


Figure 9

32. In the pyramid shown in Figure 10, which one of the following is **NOT** true?

A. $\overline{AE}$ is lateral edge
B. $\overline{EF}$ is altitude
C. $\overline{AD}$ is base
D. E is vertex.

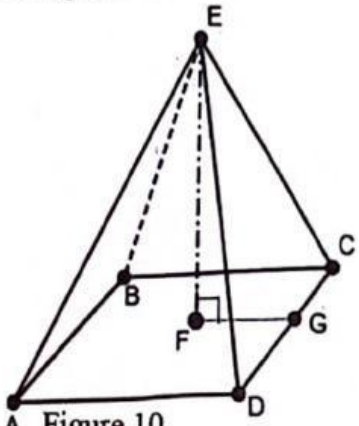


Figure 10

33. In Figure 11, if the shaded regions are parallel and congruent, then it is

A. Triangular Prism
B. Rectangular Prism
C. Hexagonal Prism
D. Cylindrical Prism

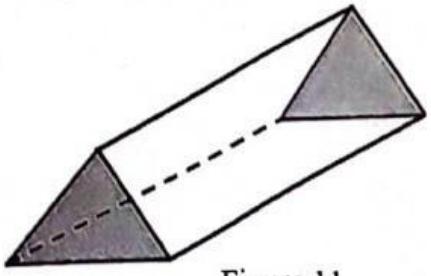


Figure 11

34. The total surface area of a cylinder with height $4cm$ and radius $3cm$ is

A. $12\pi cm^2$
B. $24\pi cm^2$
C. $33\pi cm^2$
D. $42\pi cm^2$

LIVEWORKSHEETS

35. The volume of a prism shown in the Figure 12 is

A. $90cm^3$

B. $60cm^3$

C. $20cm^3$

D. $30cm^3$

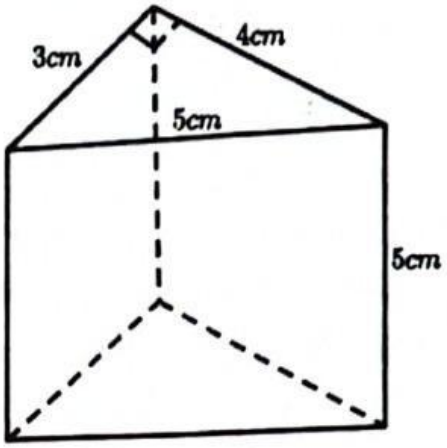


Figure 12

36. A girl planned to buy a prism box that has a capacity to hold $375000cm^3$ flour. If the base of the prism is a square with side length $50cm$, what is the height of the prism?

A. $50cm$

B. $75cm$

C. $150cm$

D. $200cm$

37. For a random experiment, all possible outcomes is called

A. Sample space

B. Event space

C. Probability

D. Result

38. A die contains 6 face with numbers 1,2,3,4,5,6 on the faces. What is the probability of getting a number greater than 2 on the upper face in rolling the die?

A. $\frac{1}{3}$

B. $\frac{2}{3}$

C. $\frac{1}{6}$

D. $\frac{5}{6}$

LIVEWORKSHEETS

39. A bag contains 3 red pens, 7 blue pens and some black pens. If a pen is picked randomly from the bag, the probability of picking red pen is $\frac{1}{6}$. What is the number of black pens?

A. 3
B. 6
C. 8
D. 10

40. A school was donated 24 mathematics books, 25 English books and 11 Science Book. A girl picked randomly one book from the donated books. What is the probability of getting Mathematics book from the donated books?

A. $\frac{5}{12}$
B. $\frac{24}{25}$
C. $\frac{1}{24}$
D. $\frac{2}{5}$

LIVEWORKSHEETS