



UNITED NATIONS COLLEGE I.E.D.  
PREPARATORY WORKSHOP  
III TRIMESTER - 2024  
MATHEMATICS 601°

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This workshop must be copied and solved in the mathematics notebook, as a requirement to present the competency-based test.

DELIVERY DATE: November 12th

1. Five friends go to the movies. The entrance fee is 4.50 Two have no money and the other three decide to invite them. How much money do they have to put in more?

Solution: \_\_\_\_\_

2. A rectangular shaped pool is 25 meters long and 12 meters wide. What surface area does it occupy?

Solution: \_\_\_\_\_

3. Solve these operations.

$$35.59 + 234 + 0.467 + 345.8 = \underline{\hspace{2cm}} \quad 234.5 - 155.69 = \underline{\hspace{2cm}}$$

$$45,689, 34 + 9,687, 46 = \underline{\hspace{2cm}} \quad 28.09 - 4.9892 = \underline{\hspace{2cm}}$$

4. Draw the following angles

a- Right Angle b-Acute Angle c-Obtuse Angle d-Plain Angle

5. Calculate:

$$12\% \text{ of } 8,700 = \underline{\hspace{2cm}} \quad 4/5 \text{ of } 1,200 \text{ aves} = \underline{\hspace{2cm}} \quad 6\% \text{ of } 54,600 = \underline{\hspace{2cm}}$$

$$2/3 \text{ of } 780 \text{ rabbits} = \underline{\hspace{2cm}} \quad 3\% \text{ of } 6,351 \text{ folios} = \underline{\hspace{2cm}}$$

$$4/7 \text{ of } 763 \text{ cats} = \underline{\hspace{2cm}}$$

6. Express in seconds.

$$40^\circ 54' = \underline{\hspace{2cm}} \text{ seconds}$$

$$230^\circ 56' 35'' = \underline{\hspace{2cm}} \text{ segundos}$$

$$460^\circ 27' 38'' = \underline{\hspace{2cm}} \text{ segundos}$$

7. Perform these operations.

$$2,345.376 \times 0.708 = \underline{\hspace{2cm}} \quad 78,956 / 56 = \underline{\hspace{2cm}}$$

$$34,078.5 \times 59.3 = \underline{\hspace{2cm}} \quad 609,834 / 394 = \underline{\hspace{2cm}}$$

8. Luisa travels 47 kilometers every day with her bicycle. How many kilometers will you cover in a week?  
How many days will it take to travel 728.5 kilometers?

9. Fill in the missing terms.

$$\underline{\hspace{2cm}} - 8,015 = 8,745 \quad 3,240 / \underline{\hspace{2cm}} = 72$$

$$6,655 \times \underline{\hspace{2cm}} = 214,340 \quad \underline{\hspace{2cm}} + 2,684 = 57,720$$

10. Complete.

- The triangle that has all the sides equal is called a \_\_\_\_\_.
- Two straight lines that intersect are straight \_\_\_\_\_.
- Two straight lines that never intersect are \_\_\_\_\_ lines.
- The triangle of two equal sides and the other unequal side is called \_\_\_\_\_.

11. Perform the following operations.

$$49,279 \times 807 = \underline{\hspace{2cm}} \quad 6,456,098 / 324 = \underline{\hspace{2cm}} \quad 276,908 \times 634 = \underline{\hspace{2cm}}$$

12. A well is 8 meters deep.  $\frac{1}{5}$  of the well is covered by mud and  $\frac{2}{5}$  has water.  
How many meters are empty?

13. In a market they sell 120 tons of fruit every day. How many 4,000-kilo trucks do you need?  
to transport the fruit sold in 5 days?

14. Find in M.C.M. and the m.c.m. of 24, 36 and 54.

$$\text{M.C.M.} = \underline{\hspace{2cm}} \quad \text{m.c.m.} = \underline{\hspace{2cm}}$$

15. Write four multiples of each number.

$$7 = \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}$$

$$15 = \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}$$

$$27 = \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}$$

16. Find all the divisors of these numbers.

$$36 = \underline{\hspace{2cm}} \quad 58 = \underline{\hspace{2cm}}$$

$$28 = \underline{\hspace{2cm}} \quad 30 = \underline{\hspace{2cm}}$$

17. Find:

$$\frac{8}{3} \text{ of } 2,430 = \underline{\hspace{2cm}} \quad \frac{4}{5} \text{ of } 3,700 = \underline{\hspace{2cm}}$$

$$\frac{5}{2} \text{ of } 4,500 = \underline{\hspace{2cm}} \quad \frac{2}{4} \text{ of } 2,400 = \underline{\hspace{2cm}}$$

18. Calcular:

$$450,000 / 25 = \underline{\hspace{2cm}} \quad 82 + 53 = \underline{\hspace{2cm}} \quad 5.6 \times 0.76 = \underline{\hspace{2cm}}$$

$$(135 / 15) - 6 + 18 = \underline{\hspace{2cm}} \quad 4.106 / 18.2 = \underline{\hspace{2cm}} \quad 1.287 \times 3.049 = \underline{\hspace{2cm}}$$

19. Simplify these sections.

$$135 / 90 = \underline{\hspace{2cm}} \quad 460 / 148 = \underline{\hspace{2cm}}$$

20. Place parentheses in the right place so that these equalities are true.

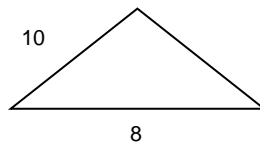
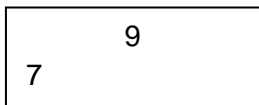
$$4 \times 7 - 3 = 16 \quad 2 \times 52 - 20 = 80 \quad 7 + 8 - 5 \times 22 = 220 \quad 24 / 6 + 3 \times 5 = 19$$

21. Resolve:

$$23.15 \times 6.7 = \underline{\hspace{2cm}} \quad 12.09 \times 8.7 = \underline{\hspace{2cm}}$$

$$56.99 \times 0.08 = \underline{\hspace{2cm}} \quad 0.468 \times 0.73 = \underline{\hspace{2cm}}$$

22. Find the perimeter and area of these figures:



23. Convert these mixed numbers to fractions.

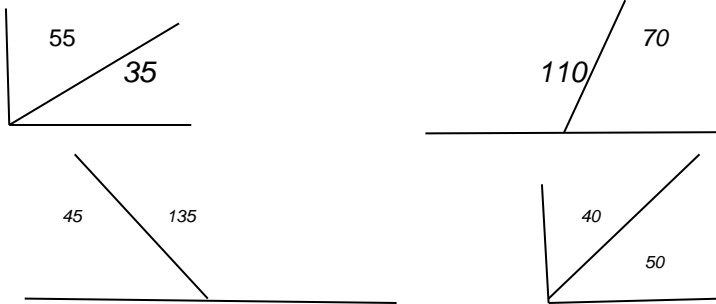
$$3 \frac{4}{7} = \underline{\hspace{2cm}} \quad 5 \frac{3}{13} = \underline{\hspace{2cm}} \quad 13 \frac{7}{11} = \underline{\hspace{2cm}}$$

24. My father buys tangerines at the market at 1.10 a dozen. How much do you have to pay if you buy 30 tangerines? What if you buy 50 tangerines?

25. Join each polyhedron with the characteristic that defines it.

Tetrahedron	12 regular pentagons
Hexahedron	4 equilateral triangles
Octahedron	20 equilateral triangles
Dodecahedron	6 squares
Icosahedron	8 equilateral triangles

26. Surround the complementary angles in blue and the additional angles in red.



27. How many 6.25 dm<sup>2</sup> tiles do you need to cover a 10m<sup>2</sup> floor?

28. Express in centimeters.

2 m 15 dm 4 cm = \_\_\_\_\_      7 dm 13 dm 500 mm = \_\_\_\_\_  
 34 m 140 mm = \_\_\_\_\_      38 cm 4700 mm = \_\_\_\_\_

29. A tank holds 37 litres and 3/4 litres of water and 5 litres and 1/2 more are added. How much will it contain now?

30. A cyclist had already traveled a third of a road consisting of 147Km 14 dm. How many meters to go?