AL KOHOZAMA INTER NATIONAL SCHOOL, DAMMAM ,KSA

Affiliated to CBSE – New Delhi, Affiliation No: 5730019

Term-3 , March 2022-23

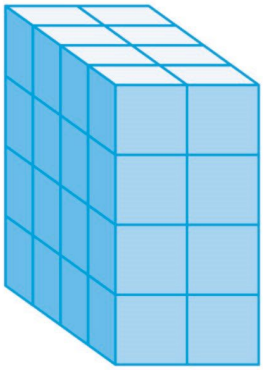
WORKSHEET

Subject: Mathematics **Class: 8**

(Block 18,19 &20)

1. A cuboidal tank with the dimensions 40 cm´ 65 cm´ 80 cm contains water up to the height of 25 cm. How many liters of water would we need to add to raise the level to 40 cm? (1 cu. cm = 0.001 liter)

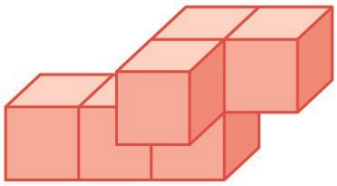
2. Choose the correct options to complete the sentences



A. The height of the cuboid is _____ unit cubes.
B. The length of the cuboid is_____ unit cubes.
C. The width of the cuboid is _____ unit cubes.
C. The volume of the cuboid is _____ unit cubes.

3. Simplify $\frac{x^5-x^2+5x^3}{x^2}$.

4. Glen is building this shape. How many more unit cubes will he need to complete the cuboid?



a. 12 unit cubes
b. 6 unit cubes
c. 4 unit cubes
d. 10 unit cubes

5. Find the three terms whose product is $s^5t - st^7$.

6. Find the area of the circular base of a cylinder with a diameter of 14 cm and height of 20 cm. (Use π = $\frac{22}{7}$)
Choose ALL the correct options.

a. 196π sq. cm
b. 49π sq. cm
c. 140 sq. cm
d. 154 sq. cm

7. Josh works for 4 hours a day and types 10^4 words. How many words can he type in 10^2 days if he works for the same number of hours each day?

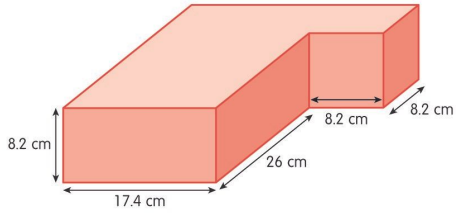
8. Choose the correct options to complete the sentences

$2pq$ 2pq p+q p + q $p + q$

A. $(p - q)^2 = p^2 -$ _____ $+ q^2$
B. $p^2 - q^2 = (p - q) \times$ (_____)

9. Simplify $\frac{a^2-16a-80}{a^2-a-20}$.

1. Find the volume of this shape.



2. A matchbox has the dimensions 4.5 cm ´ 4 cm ´ 1.5 cm.

A. What is the volume of a carton containing 15 such boxes?

B. How many such cartons can be placed in a large box of 48 cm ´ 12 cm ´ 40 cm?

3. Factorize the trinomials.

A. $x^2 - 8x + 12$

B. $2x^2 - 7x + 5$

4. Find the length and breadth of the rectangles. Verify your answer.

A.

Area =

$5x + 15 + x(x + 3)$ sq. cm

B.

Area =

$(8x - 12 - 2yx + 3y)$ sq. cm

5. Solve the problems. (Use π = $\frac{22}{7}$)

A. The capacity of a cylindrical tank is 2,025 cu. m, and the diameter of its base is 21 m. Find the depth of the tank.

B. The circumference of a cylinder is 220 cm. If the height of the cylinder is 3.6 m, find the volume of the cylinder.

BLOCK 21 & 22

1. Jimmy takes 6 hours to mow his lawn. On an average, how much of the lawn does he mow in 1 hour?

a. 6

b. $\frac{6}{60}$

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

2. Choose if True or False.

A. If A = 25B, then A and B are not in direct proportion.

B. The perimeter of a square is directly proportional to the length of its side.

3. Solve.

A. $(100x^5y^{11} - 50x^{11}y^5) \div 25x^{11}y^7$

B. $(51m^2 + 3) \div 3m^2$

4. Write any 2 non-examples of direct proportion.

5. Choose the common factors of 4v2u5z3 and 8vz5.

a.2, 2, 2, v, v, u, u, u, u, u, z, z, z, z, z

b.2, 2, v, u, z, z, z

c.2, 2, v, z, z, z

d.2, 2, v, z, u

1. If 4 men or 8 women can pack 420 items per day, how many items can 9 men and 6 women pack per day?

2. Sam bought a rectangular plot of land with an area of $96a^2b^6c^4$ sq. m. The length of the plot is $12ab^4c^3$ m. What is the breadth of the plot?

3. Ryan and John are co-workers.

A. Ryan finishes a project in 24 days. John finishes the project in 30 days. In how many days can they complete the project, if they work together?

B. Ryan works twice as fast as John. If they work together to finish a task in 8 hours, in how many hours can John alone finish the task?

End