



**NEW ALWUROOD INTERNATIONAL SCHOOL, JEDDAH**

**B.E.S.T. Group of Schools, K.S.A.**

**Affiliated to CBSE – New Delhi, Affiliation No. 5730008**

**Subject: Mathematics**

**Grade -8**

**WORKSHEET-2**

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**Block 20: Dividing Expressions**

37.  $(-2q^4c^6) \div q^3c^2 =$  \_\_\_\_\_

38.  $96p^5m^{10} \div 12p^5m^8 =$  -----

39.  $-26x(y^2 - 9xy) \div (9x - y) =$  -----

40.  $(x^2 - y^2) \div (x + y)$

41. If area of the tennis court is  $(20x^2 + 10x)$  and length of the tennis court is  $2x$ . find the breadth of the tennis court?

42. Divide the expressions:

i)  $(10\beta^4 - 8\beta^3 + 6\beta) \div 2\beta$

ii)  $(64a^2b^2 + 8a^2b^2) \div 4a^2b^2$

iii)  $240(q^2 - 8q + 16) \div 24(q - 4)$

43. Divide the expressions:

i)  $(x^2 + 5x + 6) \div (x + 3)$

ii)  $(3x^2 - 20x + 25) \div (3x - 5)$

iii)  $(4x^2 + 2x - 12) \div (x + 2)$

iii)  $(9x^2 + 39x + 40) \div (3x + 5)$

44. Solve :  $[(12c^3 + 4c^2) \div 4c^2] + [(8c^2 + 20c) \div 4c]$

### Block 23: Area of Quadrilaterals

66. Plastic Box 1.5m long, 1.25m wide and 65cm deep, is to be made. It is opened at the top, ignoring the thickness of the plastic sheet, determine:

- i. The area of the sheet required for making the box.
- ii. The cost of sheet , if a sheet measuring  $1\text{m}^2$  costs  $\square 20$ .

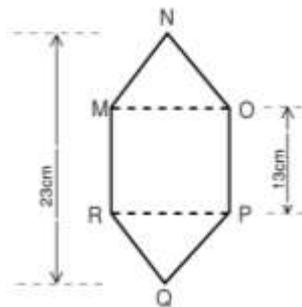
67. The area of trapezium is  $1586\text{cm}^2$  and distance between its parallel sides is 26cm. If one of the parallel side is 84cm. Find the other?

68. Find the area of a Rhombus whose diagonals are of lengths 20cm and 5.20cm?

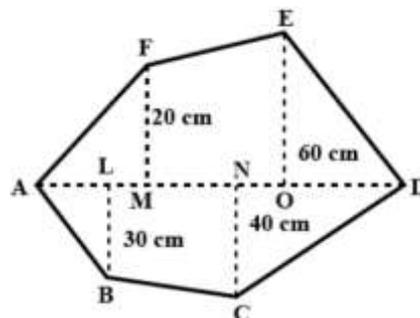
69. The diagonal of a parallelogram is 30cm and the perpendicular drawn on it from the opposite vertices are 9.5cm and 11.5cm. Find the area of the parallelogram?

70. Find the area of the given polygons:

i.



ii)  $AL = 10\text{cm}$ ,  $AN = 50\text{cm}$ ,  $AO = 60\text{cm}$ ,  $AM = 20\text{cm}$ ,  $AD = 90\text{cm}$



### Block 25: Volume

71. What will happen to the volume of a cuboid if its:

- i. Length is doubled, height is same and breadth is halved?
- ii. Length is doubled, height is doubled and breadth is same?

72. A cylindrical tank has capacity of  $5632\text{m}^3$ . If the diameter of its base is 16m. Find its depth?

73. A godown is in the form of a cuboid of measures 60m x 40m x 20m. How many cuboidal boxes can be stored in it if the volume of one box is  $0.8\text{m}^3$ ?

74. The volume of a cuboid whose length, breadth and height are  $2a$ ,  $3a$  and  $4a$  is \_ \_ \_  
\_ \_

75. The volume of a cylinder whose diameter is equal to its height is \_ \_ \_ \_ \_ \_ \_ \_ \_ \_  
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76. Four Cubes each of side 6cm, are joined end to end. Find the volume of the resulting cuboid?

77. The bottom of the tank measures 50m x 40m. Find its depth if it contains  $4000\text{m}^3$  of water.

### Block 26: Laws of Exponents

45. Write exponential form: i)  $\frac{16}{81}$       ii)  $\frac{-1}{243}$       iii) 243000      iv)  $64 \times 27$

46.  $3^5 \times 3^3$  -----

47.  $(-4.29)^0 + 5^{-2}$ -----

48.  $(4^2)^{-3} =$ -----

49. Find the value of  $a^2 - (b + 1)^3$  when  $a = \frac{1}{2}$  and  $b = \frac{-3}{4}$

50. True or false:

i)  $(\frac{3}{11})^{-2}$  is a whole number.

ii)  $(\frac{2}{9})^{-2} \times (\frac{9}{2})^2 = 1$

51. Write in standard form:

i) 0.00000306

ii) 0.000045

iii) 836000000

52. Write in usual form :

i)  $2.3456 \times 10^3$

ii)  $6.34 \times 10^{-5}$

iii)  $6 \times 10^8$

53. For any two non-zero rational numbers x and y,  $x^4 \div y^4$  is equal to (a)  $(x \div y)^0$   
(b)  $(x \div y)^1$  (c)  $(x \div y)^4$  (d)  $(x \div y)^8$

54. Find the product of the cube of (-2) and the square of (+4).

i)  $\frac{5^4 \times x^{10} y^5}{5^4 \times x^7 y^4}$

ii)  $\frac{3^2 \times 7^5 \times 13^6}{21^2 \times 91^3}$

iii)  $(3^{-1} + 4^{-1} + 5^{-1})^0$

iv)  $\frac{3^{-5} \times 10^{-5} \times 125}{6^{-5} \times 6^{-5}}$

v)  $\frac{9^{11} \times (x^2)^5}{27^4 \times (x^3)^2}$