



**NEW ALWUROOD INTERNATIONAL SCHOOL, DAMMAM**

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

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

**Subject: Mathematics**

**Grade -7**

**WORKSHEET-2-TERM-2(2021-'22)**

---

**Block 23: Perimeter and Area**

28. If the area of a triangle is 36 sq. cm and height is 3cm. What will be the base of the triangle\_\_\_\_\_

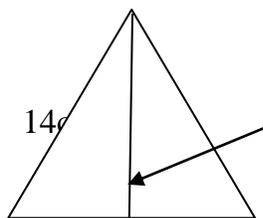
29. The area of the square park is the same as of a rectangular park, if the side of the square park is 60m, and the length of the rectangular park is 90 m, find the breadth of the rectangular park, Also, find the area of the rectangular park.

30. A rectangular plot of dimensions 30m x 20m has a 2m wide passage all around. Find the area of the passage.

31. Find the area of the parallelogram whose base is 7cm and height is 4cm.

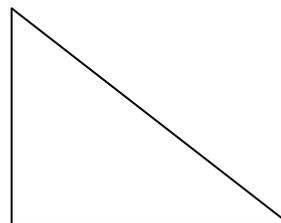
32. The area of a triangle is 50 sq.cm and its base is 12 cm. Find its height.

33. Which triangle has more area?



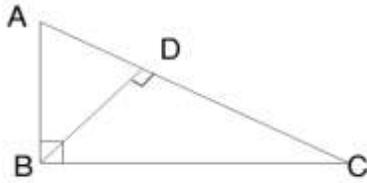
6.5cm

24cm



12.6cm

34. PQR is a right triangle, right angled at Q, with AB = 5cm and BC = 6cm . BD drawn perpendicular to the hypotenuse AC. Find the length of BD if AC = 7cm.



35. From a rectangular cloth piece of length 2.4m and breadth 1.8m, 10 small pieces of area  $26.8 \text{ m}^2$  each were cut out. What would be the area of the cloth that is left?

**Block 28: Laws of Exponents**

36. Write in exponential form: 512

37. Which is greater  $2^2$  or  $4^2$

38. Write down the base and exponents for the following:

i)  $(243)^5$                   ii)  $(-11)^6$

39.  $(-900)^0 = \text{-----}$

40. fill in the blanks

i)  $\left(\frac{a}{b}\right)^m = \frac{a}{b^m}$                   ii)  $x^2y^2 = (xy)^{\text{---}}$

41. Simplify: i)  $\{(4^2)^3 \times 4^2\} \div 4^8$                   ii)  $(-5)^4 \times (-7)^4$

iii)  $\frac{5^3 \times 3 \times t^7}{9^2 \times 5^3 \times t^2}$

42. Express in the standard form:

i) 9050200000

ii) 12,00,00,00,000

43. Solve: i)  $(10^2)^5$

ii)  $a^5$

$$\frac{\quad}{a^4 \times a^3}$$

iii)  $(-7)^0 \times (-8)^0 - 1$

### **Block 25: Algebraic Expressions**

44. Write degree of the following Algebraic Expressions:

i)  $16m^2 - 4y$

ii)  $14x^4 + 13x^3 - 21x + 6$

iii) 2.56

45. Write the algebraic expressions for the following statements:

i) Product of numbers a and b subtracted from 50.

ii) Thrice the sum of two numbers x and y.

iii) four less than a number.

iv) Sunita's sister is 5 years older than her.

46. Draw the factor tree for the following expressions:

i)  $2xy^2 + 7x + 2$

ii)  $7a^2 - 14ab + 21$ .

47. Write the constant terms for the given expressions:

i)  $3x^2 - 5x + 7$

ii)  $ax^2 + bx + c$

iii)  $m^2 + n^2 + 2mn$

48. Classify into monomials, binomials, and trinomials:

i)  $25a + b$

ii)  $2x - 3y + 7x$

iii)  $7xy - 8y^2 + 4$

iv) -191

49. Write the coefficient of the following variables given in the table.

Expressions	Coefficients
$-x^2 + 5x + 25$	$x^2 =$
$22m^4 + 3yx + 42y^3$	$y^3 =$
$2x^2 - 5xy$	$x =$

50. Find the value of the expression if  $a = 2$  and  $b = 1$

i)  $a + 3y$

ii)  $7 - ab^2$

**Block 26: Adding and Subtracting of Algebraic Expressions**

51. Add the following:

i)  $-3ab, 17ab, 13ab$

ii)  $2pq - 3c, 14c + 7pq, pq - 5c$

iii)  $3x^2 + 7x + 7, 9x^2 - 2x + 5$

52. Subtract:

i)  $p^2 - q^2$  from  $3p^2 - 5q^2 + 7pq$

ii)  $g^2 + h^2 - 2gh$  from  $g^2 + h^2 + 2gh$

iii)  $-2r^2 + 9r - 8r^2$  from  $9r^3 + 5r^2 + 11r$

53. Simplify

i)  $(3x^4 - 3x) - (3x - 3x^4)$

ii)  $(x^2 + 10x + 28) + (35x^2 + 30x - 14)$

54. What should be added to  $a + 2b - 3c$  to get  $3a$ ?

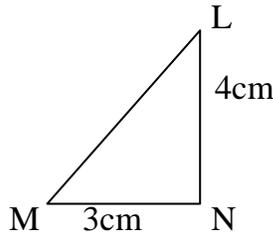
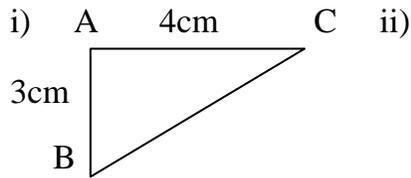
55. Take away  $10x^4 + 7x + 5x^5$  from  $-7x^5 + 14 - 2x$ .

56. In a classroom, the numbers of girls are 50 more than the four times the number of girls. What are total number of students in the classroom?

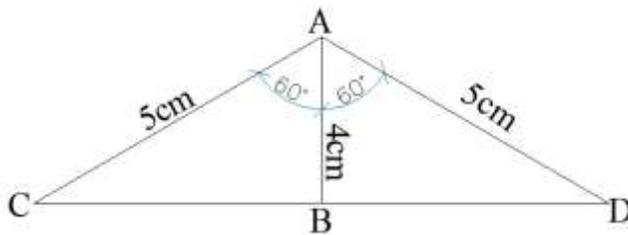
### Block 15: Congruence of Triangles

57.  $\triangle XYZ$  and  $\triangle LMN$  are congruent under the correspondence  $XYZ \rightarrow LMN$ . Write the correspondence of all the parts.

58. For the following figures, write the congruence condition and corresponding parts:



iii)



59. The symbol used to represent congruent triangles is : \_\_\_\_\_

60. If  $\triangle PQR \cong \triangle LMN$ , then:

a)  $PQ = LN$       b)  $PQ = MN$       c)  $PQ = LM$       d)  $\angle R = \angle L$

61. Two line segments are congruent if their lengths are \_\_\_\_\_

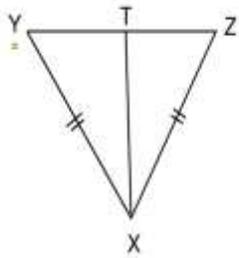
62. Which one of the following is not a criterion for congruency of triangles?

a) ASA      b) RHS      c) SSS      d) AAA

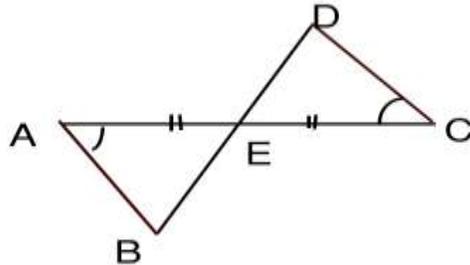
63. In  $\angle A = \angle D$ ,  $\angle B = \angle E$  and  $AB = DE$ , then  $\triangle ABC \cong \triangle DEF$  by which condition. \_\_\_\_\_

64. If  $\triangle ABC$  and  $\triangle DEF$  are equilateral triangles and  $AB = XY$ . The condition under which  $\triangle ABC \cong \triangle DEF$  is \_\_\_\_\_.

65.  $\triangle XYZ$  is isosceles with  $XY = XZ$  and  $\angle XTZ = 90^\circ$ . Show that  $\triangle XTY \cong \triangle XTZ$ , by RHS congruence condition.



66. In the figure below, it is given that  $AE = CE$  and  $\angle A = \angle C$ . Show that  $\triangle AEB \cong \triangle CED$ .



.....