AL KHOZAMA 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_____

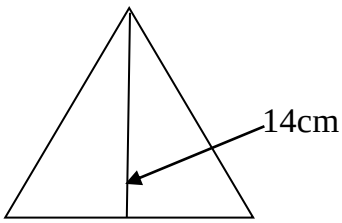
29. The area of the square park is the smae as of a rectangular park, if the side of the square park is 60m, and the length of the rectangular park is 90 m, find the breadth of the recatngular park, Also, find the area of the rectangular park.

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

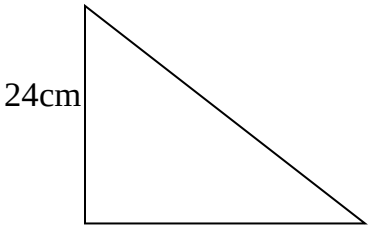
31. find the area of the parallelogram whose base is 7cm and height is 4cm.

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?

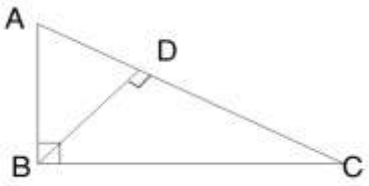


6.5cm



12.6cm

34. PQR is a right triangle, right angled at Q, with AB = 5cm and BC = 6cm . BD drawn perpendicular to the hypotenus 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 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. $(-900)^0$ = ----------

40. fill in the blanks

i) $(\frac{a}{b})^m$ $= \frac{a}{b^m}$ ii) $x^2y^2 = (xy)$—

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) $\frac{a^5}{a^4 \times a^3}$

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

Block 25: Algebraic Expressions

44. Write degree of the following Algebraic Expressions:

i) $16\ m^2 - 4y$

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

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

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?

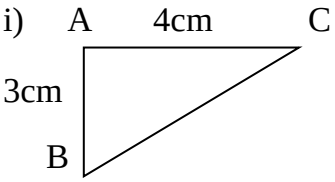
55. Take away $10x^4 + 7x + 5x^5$ from $-7x^5 +14 – 2x$.

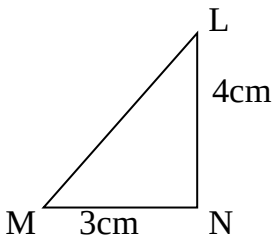
56. In a classroom, the numbers of girls are 50 more than the four times the number of girls. What are total number of students in the classroom?

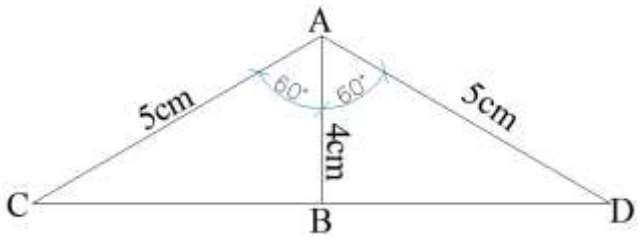
Block 15: Congruence of Triangles

57. ΔXYZ and ΔLMN are congruent under the correspondence XYZ↔LMN. Write the correspondence of all the parts.

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

i) 

ii) 

iii) 

59. The symbol used to represent congruent triangles is :_____

60. If ΔPQR ≅ ΔLMN, then:

a) PQ = LN b) PQ = MN c) PQ = LM d) ∠R = ∠L

61. Two line segments are congruent if their lengths are _____

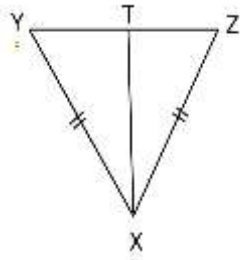
62. Which one of the following is not a criterion for congruency of triangles?

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

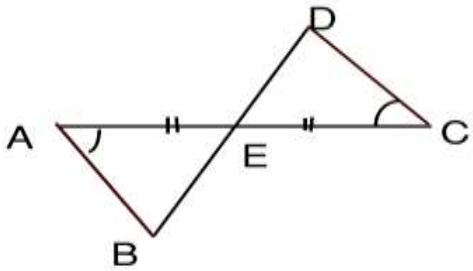
63. In ∠A = ∠D, ∠B = ∠E and AB = DE, then ΔABC ≅ ΔDEF by which condition._____

64. If ΔABC and ΔDEF are equilateral triangles and AB = XY. The condition under which ΔABC ≅ ΔDEF is_____.

65. ΔXYZ is isosceles with XY = XZ and ∠ XTZ = 90°. Show that ΔXTY ≅ ΔXTZ , by RHS congruence condition.



66.In the figure below, it is given that AE = CE and ∠A = ∠ C. Show that ΔAEB ≅ Δ CED.



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