Republic of the Philippines

Department of Education

Region VII, Central Visayas

Division of Lapu-Lapu City

SCIENCE AND TECHNOLOGY EDUCATION CENTER

JUNIOR HIGH SCHOOL

**MATHEMATICS 9**

2ND SUMMATIVE TEST

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**MULTIPLE CHOICE:** Choose the letter of the correct answer then write it on the space before each number. If the correct answer is not found on the choices, write the correct answer.

A 1. Which equation shows that “y varies directly as x”.

A. y = kx B. y = C. k = yx D. x = ky

B 2. What kind of variation is shown between a person’s salary to the numbers of hours worked?

A. Combined B. Direct C. Inverse D. Joint

C 3. As the altitude (h) increases, the air pressure decreases. What variation is illustrated?

A. Combined B. Direct C. Inverse D. Joint

C 4. Fill in the blank:  = where m and n are natural numbers.

1. m + n B. m – n C. mn D.

D 5. What is the ?

1. 12 B. 9 C. 6 D. 3

C 6. Which of the following is the index of a radical expression?

1. the number *n* in *n* C. the number *n* in
2. the number *n* in D. the number *n*

B 7. Which of the following radical is equivalent to ?

1. B. C. D.

B 8. What expression is the radical form of 2x1/2?

1. B. C. D.

A 9. What is the simplest form of ?

1. -1 B. C. D.

B 10. What is the result after simplifying 2 + 4 - 5?

1. - B. C. 11 D. 21

C 11. What is the sum of 2?

1. B. C. D.

A 12. What is the simplified form of ?

1. B. 12 + C. 27 D.



A 13. Which is the simplest form of?

1. B. C. D.

B 14. What is the greatest perfect square factor of 98x3 y7?

1. 16 x y B. 49 x2y6  C. 49 D. 16x3y7

C 15. Which of the following radical equation will have the same solution as

1. B. = x -3 C. = 9 D. = 5

B 16. If (x – 3) varies inversely as (y+4) and x = 8 when y =2, find x when y = -1.

1. 12 B. 13 C. 14 D. 15

C 17. What is the value of x in ?

1. -1/6 B. 19 C. D. 2

A 18. What is the result when - evaluated?

1. 9 B. 6 C. 3 D. 0

D 19. What is the simplified form of ?

1. B. C. D. 1

C 20. Which of the following is true?

B. = C.= D. =

C 21. What is the result when any number raised to the zero exponent?

1. -1 B. 0 C. 1 D. 2

C 22. What do you call those radicals with the same order and with the same radicand?

1. Dissimilar Radicals C. Similar Radicals
2. Similar Terms D. Unlike Radicals

C 23. What do you call the equation in which the variable appears in the radicand?

1. Exponential Equation C. Radical Equation
2. Linear Equation D. Quadratic Equation

A 24. Which of the following is a radical equation in one variable?

1. = 2 B. = 5 C. 2x = 10 D. + = 7

D 25. The strength *S* of a horizontal beam of rectangular cross section and of length *L* varies jointly as the breadth *b* and the square of the depth *d* and inversely as the length *L*. Which equation describes this relationship?

1. L = B. L = C. S = D. S =

C 26. What is in fractional exponent?

1. B. C. D. p

C 27. What do you call the process of eliminating the radical sign in the denominator?

1. Conjugation B. Factorization C. Rationalization D. Simplification

B 28. A car travels a distance of *d* km in *t* hours. The formula that relates *d* to *t* is *d = kt*. What kind of variation is it?

1. Combined B. Direct C. Inverse D. Joint

A 29. If *m* varies directly as n and *m = 32* when *n = 4*. What is the constant of variation?

1. 8 B. 28 C. 36 D. 128

D 30. If *w* varies jointly as *x* and *y* and w = 60 when x = 3 and y = 4, Find *y* when w = 80 and x = 2

1. 5 B. 8 C. 20 D. 40

B 31. If 36 men can do a piece of work in 25 days, in how many days will 15 men can do it?

1. 72 B. 60 C. 56 D. 50

D 32. What is the product when the multiplied by ?

1. 84 B. 21 C. 4 D. 2

A 33. What is the simplified form of in radical form?

1. B. y C. y D. 10

D 34. In a flagpole, a 10-meter rope is attached to the pole from a point on the field. If the rope is 8 meters away from the base, how high is the pole?

1. 1.41 meters B. 4.24 meters C. 6 meters D. 12.81 meters

C 35. What do you call this **symbol** ?

1. exponent B. index C. radical sign D. radicand

C 36. Which of the following is the equivalent of2-3?

1. 8 B. 6 C. D. -6

A 37. What is the result when we add ?

1. 6 B. 7 C. D. -6

B 38. Which of the following radical equation will have x = 16 as the solution?

1. B. C. D.

A 39. What is the solution of the radical equation

1. 39 B. 9 C. 3 D. 4

C 40. What is the result when (5 - ) multiplied by( 5 + ) ?

1. 21 B. 25 - 10 – 4 C. 23 D. 10

B 41. In the expression , what do you call ***n***?

1. base B. exponent C. power D. radicand

B 42. If y varies inversely as x, and y = when x = 20, find y when x = 5.

1. 3 B. 2 C. 5 D. 20

B 43. If y varies directly as x and y=24 when x = 6, find the constant of variation.

1. 6 B. 4 C. 8 D. 3

C 44. Which is an example of a direct variation?

1. x=2zy B. z = C. y = 2x D. k = xy

B 45. The volume *V* of a gas varies directly as its temperature *t* and inversely as its pressure *p*. If the *V=80ml* when *t=30* and *p=10kg/cm,* what will be the volume when *t=20* and the *p=20kg/cm²*?

A. 20 B. 26.67 ml C. 30 ml D. 32 ml

B 46. Given that y varies directly as x and y = 72 when x = 8, what is the constant of variation.

1. 8 B. 9 C. 10 D. 12

B 47. What is the quotient when the is divided by

1. B. C. D.

A 48. Which of the following describes an inverse variation?

1. B. C. D.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | 1/2 | 1 | 2 | 4 |
| y | 8 | 4 | 2 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | 1 | 2 | 3 | 4 |
| y | 3 | 6 | 9 | 12 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | 40 | 30 | 20 | 10 |
| y | 8 | 6 | 4 | 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | 6 | 8 | 10 | 12 |
| y | 2 | 4 | 5 | 6 |

A 49. What is the equivalent of + using exponential notation?

1. + B. 43+25 C. 68 D.

B 50. What is the simplified form of ?

1. B. C. D.

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| Bonus: Make a meme that is related to Math. |

No matter how hard or impossible it is,

Never lose sight of your goal.

-Monkey D. Luffy

* God bless! -