



VIDYA BHARATI SCHOOL

OLYMPIAD WORKSHEET: OCTOBER, 2017

GRADE: VIII

SUBJECT: MATHS

- Formula used to measure circumference of circle is
(a) $2\pi r$ (b) $\pi r^2 + 2r$ (c) πr^2 (d) none
- Quarter of circle is
(a) minor segment (b) chord (c) quadrant (d) semicircle
- Considering radian, value of $\tan 1.1$ is
(a) 1.964 (b) 0.857 (c) 0.382 (d) 0.457
- If arc of circle of radius 30 cm has a length of 19 cm then angle subtended at center of circle is
(a) 51.28 (b) 16.28 (c) 46.28 (d) 36.28
- The coefficient of x in the expression $-7x + 5$ is
(a) 5 (b) -7 (c) 7 (d) x
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- The common factors of the terms $2y$, $22xy$ is
(a) 2 (b) $2y$ (c) y (d) xy
- The factorization of $7a^2 + 14a$ is
(a) $7(a+z)$ (b) $21a$ (c) $7(a+1)$ (d) $7a(a+2)$

9. The area of triangle is "xy" where "x" is length and „y" is breadth. If the length of rectangle is increased by 5 units and breadth is decreased by 3 units, the new area of rectangle will be
- (a) $(x-y)(x+3)$ (b) $xy+15$ (c) $(x+5)(y-3)$ (d) $xy +5-3$
10. The product of $a^2, 2a^2, 5a^{10}$ is
- (a) $10a^{34}$ (b) $7a^{34}$ (c) $10a^{22}$ (d) $10a^{440}$
11. Value of $(4p - 3q)^2$ is
- (a) $16p^2-9q^2$ (b) $16p^2- 9q^2 +24pq$ (c) $16p^2- 9q^2- 24pq$ (d) $16p^2+ 9q^2 24pq$
12. $(9x+a)(x+b)$ is equal to
- (a) $x^2+ax +ab$ (b) $x^2+(a+b)x +ab$ (c) $x^2 +bx +ab$ (d) x^2+ab
13. Use suitable identity to evaluate 992
- (a) 9801 (b) 10199 (c) 10201 (d) 10001
14. Evaluate $(4x+y)^2$ by suitable identity
- (a) $4x^2+y^2+8x$ (b) $4x+y+8xy$ (c) $16x^2+y^2+8xy$ (d) $16x^2+y^2$
15. Find the value of 95×102 by suitable identity.
- (a) 10310 (b) 10290 (c) 10690 (d) 9690
16. Simplification of $(t+s^2)(t^2-s)$ is
- (a) $t^3+s^3-s^2t^2- ts$ (b) $t^3-s^3+s^2t^2-st$ (c) $t^3-s^3+s^2t^2+st$ (d) $t^3+ s^3- s^2t^2+st$
17. $(a-b)^2$ is equal to
- (a) $a^2+b^2- 2ab$ (b) $a^2- b^2 + 2ab$ (c) $a^2- b^2$ (d) $(a-b)(a+b)$

18. Using identity $a^2 - b^2 = (a+b)(a-b)$, find $4^2 - 6^2$
- (a) -20 (b) 20 (c) -12 (d) 12
19. The expression in one variable is
- (a) $x+x^2+1$ (b) $x+y$ (c) $x+9y$ (d) xyz
20. Which of the following has the formula $\frac{1}{2}(\text{sum of parallel sides}) \times h$
- (a) area of rectangle (b) area of rhombus
- (c) area of quadrilateral (d) area of trapezium

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