



ODM PUBLIC SCHOOL

HOLIDAY HOME WORK

CLASS- STD-IX

ENGLISH

Worksheets of Me and Mine Book.

Solve the worksheets of Me and Mine book of literature text and supplementary reader and write the answers in the respective note books.

Lessons :

1. The Fun They Had.
2. The Sound of Music
3. The Road Not Taken
4. The Wind

Supplementary Reader :

1. The Last Child
2. The Adventures of Toto

ODIA

୧. ରଚନା : ପ୍ରକୃତିର ବିଭାଷିକା : ଫୋନି
୨. ରଚନା : ସାଂପ୍ରତିକ ନିର୍ବାଚନା ବ୍ୟବସ୍ଥା
୩. କବିତା - ପଦ୍ମ - ପ୍ରବନ୍ଧ : - ଶକ୍ତି ଓ ଜ୍ଞାନ ପରୀକ୍ଷା ନିମନ୍ତେ ପ୍ରସ୍ତୁତ ହୁଅ ।
୪. ଉପରୋକ୍ତ ଦୁଇଟି ବିଷୟରୁ ୧୦ଟି ଲେଖାଏଁ **MCQ** ପ୍ରସ୍ତୁତ କର ।
୫. ବ୍ୟାକରଣ : ସନ୍ଧି ଓ ସମାସ ଅଭ୍ୟାସ କର ।

SANSKRIT

୧. ପଞ୍ଚ ଚିତ୍ରଲିଖନ
୨. ଦଶ ଅପଠିତ ଅନୁଚ୍ଛେଦ
୩. ପଞ୍ଚ ପତ୍ରଲିଖନ ଲିଖନ
୪. ସନ୍ଧି - ସ୍ଵରସନ୍ଧି
୫. ପାଠ-୨, ୩, ପ୍ରଶ୍ନୋତ୍ତର

HINDI

१. दिए गए संकेत बिंदुओं के आधार पर अनुच्छेद लिखिए ।
- (क) आज की बचत, कल का सुख
- (ख) आधुनिक शिक्षा और रोजगार
२. (क) फास्ट फूड खाने के बारे में अनुज और उसकी मम्मी के बीच होने वाले बातचीत को संवाद शैली में प्रस्तुत कीजिए ।
- (ख) परीक्षा की तैयारी को लेकर राम और रघु के बीच संवाद लिखिए ।

MATHEMATICS

1. Prove that $\sqrt{5} - \sqrt{3}$ is not a rational number.
2. Arrange the following in descending order of magnitude $\sqrt[8]{90}$, $\sqrt[4]{10}$, $\sqrt{6}$.
3. Simplify the following: $(4\sqrt{3} - 2\sqrt{2})(3\sqrt{2} + 4\sqrt{3})$
4. If $a = 6 - \sqrt{35}$, find the value of $a^2 + \frac{1}{a^2}$.
5. Simplify, by rationalizing the denominator
- $$\frac{2\sqrt{6}}{\sqrt{2} + \sqrt{3}} + \frac{6\sqrt{2}}{\sqrt{6} + \sqrt{3}} - \frac{8\sqrt{3}}{\sqrt{6} + \sqrt{2}}$$
6. If $x = \frac{\sqrt{2} + 1}{\sqrt{2} - 1}$ and $y = \frac{\sqrt{2} - 1}{\sqrt{2} + 1}$, find the value of $x^2 + y^2 + xy$.
7. If $\frac{5 + 2\sqrt{3}}{7 + \sqrt{3}} = a - \sqrt{3}b$, find a and b where a and b are rational numbers.
8. Evaluate: $\frac{1}{\sqrt{2} + 1} + \frac{1}{\sqrt{3} + \sqrt{2}} + \frac{1}{\sqrt{4} + \sqrt{3}} + \dots + \frac{1}{\sqrt{9} + \sqrt{8}}$
9. If $x = \frac{1}{2 + \sqrt{3}}$, find the value of $2x^3 - 7x^2 - 2x + 1$.
10. If $\sqrt{2} = 4.414$ and $\sqrt{5} = 2.236$, find the value of $\frac{\sqrt{10} - \sqrt{5}}{2\sqrt{2}}$ up to three places of decimal.
11. Factorize the following: $9x^2 + 6x + 1 - 25y^2$.
12. Factorize the following: $a^2 + b^2 + 2ab + 2bc + 2ca$.
13. Show that $p(x) = x^3 - 3x^2 + 2x - 6$ has only one zero.
14. Find the value of "a" if $x + 6$ is a factor of $x^3 + 3x^2 + 4x + a$.

15. If polynomials $ax^3 + 3x^2 - 3$ and $2x^3 - 5x + a$ leaves the same remainder when each is divided by $x - 4$, find the value of a .
16. Find the integral zeroes of the polynomial $2x^3 + 5x^2 - 5x - 2$.
17. If $(x - 3)$ and $\left(x - \frac{1}{3}\right)$ are both factors of $ax^2 + 5x + b$, then show that $a = b$.
18. Find the value of $x^3 + y^3 + 15xy - 125$ if $x + y = 5$.
19. Without actually calculating, find the value of $(25)^3 - (75)^3 + (50)^3$.

Choose the correct answer

1. Sum of two irrationals is:

a) irrational	b) rational	c) Can't Say	d) Rational/Irrational
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2. For what value of n , \sqrt{n} will be a rational number?

a) 2	b) 3	c) 4	d) 5
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3. Value of $(3 + \sqrt{3})(3 - \sqrt{3})$

a) 6	b) 3	c) $3\sqrt{3}$	d) 0
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4. Value of $\sqrt{32}/\sqrt{2}$ is:

a) 16	b) 2	c) ± 4	d) 3
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5. How many rational numbers are there in between $\sqrt{3}$ and $\sqrt{5}$?

a) 0	b) 1	c) 2	d) Un-countable
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6. Irrational numbers are always:

a) Terminating	b) Non-terminating
c) Non-terminating repeating	d) Non-terminating non-repeating
7. All the rational numbers are:

a) Natural Numbers	b) Whole numbers	c) Integers	d) None
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8. Decimal expression of $1/7$ is:

a) Terminating	b) Non-terminating
c) Non-terminating repeating	d) Non-terminating non-repeating
9. If m^n is 32 then n^m is:

a) 10	b) 25	c) 23	d) None
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10. Value of $3\sqrt[12]{6}/\sqrt[6]{27}$ is

a) $1/2$	b) $\sqrt{3}$	c) $1/3$	d) $\sqrt{2}$
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11. What is the degree of zero polynomial?

a) 0	b) 1	c) Un-defined	d) None
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12. What is the degree of non-zero constant polynomial?

a) 0	b) 1	c) Un-defined	d) None
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13. Who discovered the presence of irrational numbers first?

a) Pythagoras	b) Dedekind	c) Cantor	d) Archimedes
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14. If $x+y+2=0$. then value of x^3+y^3+8 equal to:

- a) 0 b) 1 c) 2 d) None

15. If $2(a^2+b^2)=(a+b)^2$ then

- a) $a+b=0$ b) $a=b$ c) $2a=b$ d) $ab=0$

16. If x^3+2x-1 is divided by $x-1$ then the remainder is:

- a) 1 b) -1 c) 0 d) 2

17. Value of 525^2-475^2 is:

- a) 5000 b) 10000 c) 50000 d) 100000

18. If $a+b=-1$, then the value of a^3+b^3-3ab is:

- a) 26 b) -1 c) 1 d) 26

19. If $a/b + b/a = 1$ then a^3-b^3 is

- a) 1 b) -1 c) 0 d) $1/2$

20. If $a+b+c=6$, then $(2-a)^3+(2-b)^3+(2-c)^3-3(2-a)(2-b)(2-c)$ is:

- a) 3 b) -3 c) 0 d) -1

21. Represent $\sqrt{10}$ on number line.

22. Find the value of "k" when $x-1$ is a factor of kx^2-3x+k

23. Represent 1.27 in the form of p/q .

24. Represent $\sqrt{7.5}$ on number line.

25. Rationalize $[5/(\sqrt{3}-\sqrt{5})] + [5/(\sqrt{3}+\sqrt{5})]$

26. Represent 4.5639 on number line.

Or

Plot the points on the Cartesian plane (5,3), (-5,-3), (-3,5) and (6,-4)

27. If $(x-3)$ and $(x-1/3)$ are factors of ax^2+5x+b then show that $a=b$

28. Factorize: $x^3 - 3x^2 - 9x - 5$

29. Verify that $\frac{1}{2}(x+y+z)[(x-y)^2 + (y-z)^2 + (z-x)^2] = x^3+y^3+z^3-3xyz$

30. Divide x^3+1 by $x+1$ **Or** Prove that every line segment has only one midpoint.

31. If $x+y+z=0$, show that $x^3+y^3+z^3=3xyz$

32. Find the remainder when $x^3 + 3x^2 + 3x + 1$ is divided by $2x + 5$

SCIENCE

Physics

1. Derive the three equations of motion graphically.
2. Differentiate between (a) speed and velocity (b) distance and displacement.
3. What is uniform and non uniform motion?

Chemistry

1. Explain by an activity to verify the latent heat of vapourisation.
2. (i) What is the SI unit of temperature. Show its relationship with degree Celsius.
(ii) Convert the normal body temperature of human being from °C to °F.

Biology

1. Complete lab manuals (a) onion pul cell (b) human cheek cell (c) plant tissue
2. Differentiate between (a) Diffusion and Osmosis, (b) Pinocytosis and Phagocytosis, (c) RER and SER, (d) Hypotonic and Hypertonic solution.
3. Why does the skin of your finger shrinks when you wash clothes for a longer time?
Justify with suitable reasons.
4. Which kind of plastid is more common in
(a) roots of plants
(b) leaves of plank
(c) flowers and fruits
5. Briefly explain the structure of mitochondria and give its function.

SOCIAL SCIENCE

History

1. What was the immediate cause of French Revolution?
2. Who was Maxmillian Robespierre? How did his fall contribute to the rise of the weather middle class?
3. Describe the impact of first world war on Russia.
4. Describe the main events of the October Revolution in Russia.

Civics

1. Explain with references to Fiji, Estonia and Saudi Arabia that one person, one vote and one value is the basic feature of Democracy.
2. What is constitution? Why was there a need to draw up a constitution in India.

Economics

1. Describe any three types of production activities in palampur.
2. Describe any five non-farm activities in Indian villages like palampur.

Geography

1. State any three differences between –
 - (a) East coast plains and West coast plains
 - (b) East flowing and West flowing rivers of south India.
2. State any three environmental importance of lakes.
3. Discuss Indus Water Treaty.
 - Project Work
 - Cyclone as a Hazard with special reference to Odisha- (Time spam 1999-2019) – (ppt) – Project Synopsis and Report be submitted in hand written hard copy)