SHADLEY PUBLIC SCHOOL. Class IX, Maths. Assignment

1) If $Z = 0.064$ find $\left(\frac{1}{Z}\right)^{1/3}$

2) Plot the following points on the graph paper. A(1,-3) B(2, 2.5) C(-3,-1) D(0,4)

3) find the value of p if (2,3) are the solution of the equation $5x + 3py = 4x$

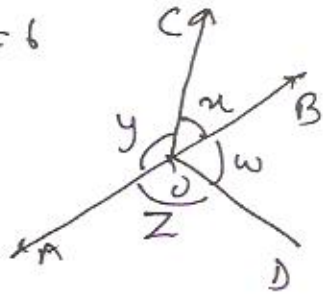
4) Three sides of a Δ are 12 cm, 16 cm and 20 cm. find its area.

5) factorise $8x^3 + 8y^3$

6) factorise $(x-2y)^3 + (2y-3z)^3 + (3z-x)^3$.

7) Draw the graph of $2x + 3y = 6$

8) In fig. $x + y = w + z$ then prove AOB is a straight line



9) write $0.\overline{47} + 0.\overline{7}$ in p/q form

10) Plot $\sqrt{5}$ on number line

11) Solve for x: $\frac{3x+2}{7} + \frac{4(x+1)}{5} = \frac{2}{3}(2x+1)$

12) Verify if $\frac{1}{2}$ and $-\frac{3}{2}$ are the zeros of the poly. $p(x) = 8x^3 - 4x^2 - 18x + 9$. If yes then factorise

13) factorise $x^3 + 13x^2 + 32x + 20$

14) find the values of a and b if

$$\frac{\sqrt{7}+1}{\sqrt{7}-1} + \frac{\sqrt{7}-1}{\sqrt{7}+1} = a + b\sqrt{7}$$

PTO

15) If $a+b+c=6$, find the value of

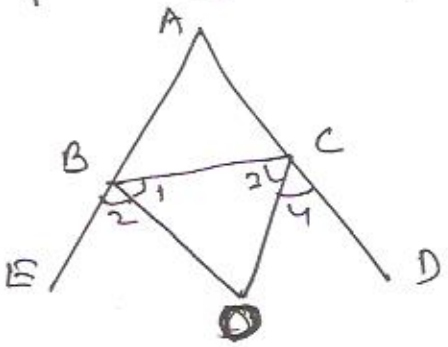
$$(2-a)^3+(2-b)^3+(2-c)^3-3(2-a)(2-b)(2-c)$$

16) If the poly. $2+ax-2x^2-3x^2$, is exactly divisible by $x+1$, then find the value of a. Hence, factorise the poly.

17) A field is in the shape of a trapezium whose parallel sides are 25m and 10m. The non parallel sides are 14m and 13m. find the area of the field

18) In fig prove $\angle BOC = 90^\circ - \frac{1}{2}\angle BAC$

If $\angle 1 = \angle 2$
$\angle 3 = \angle 4$



19) which is greater $\sqrt{2}$, $\sqrt[3]{4}$ and $\sqrt[4]{5}$

20) find the coefficient of x in the expression $(x-3)^2$

21) find the reflection of the point $(4,-4)$ in x-axis

22) find remainder when x^3+2x^2-3x-1 is divided by $x-1$

23) find the value of $(64)^{1/2} \cdot (125)^{1/3}$

24) Simplify $\frac{3\sqrt{2}}{\sqrt{6}-\sqrt{3}} - \frac{4\sqrt{3}}{\sqrt{6}-\sqrt{2}} + \frac{2\sqrt{3}}{\sqrt{6}+2}$.