

REVISION SHEET 02 IX

Standard: 9th

Subject: Mathematics

- Q1. Factorise:
 $6x^2 - 11x - 35$
- Q2. Evaluate the following products without multiplying directly:
 103×107
- Q3. Factorise:
 $\frac{2}{3}x^2 - \frac{17}{3}x - 28$
- Q4. Write the following in the expanded form:
 $(2x - y + z)^2$
- Q5. Factorise:
 $x^2 - x - 156$
- Q6. Factorize the following expressions:
 $a^3 + 8b^3 + 64c^3 - 24abc$
- Q7. Factorise:
 $1029 - 3x^3$
- Q8. Factorise:
 $21x^2 - 2x + \frac{1}{21}$
- Q9. Find the value of:
 $x^3 - 8y^3 - 36xy - 216$, when $x = 2y + 6$
- Q10.Factorise:
 $16x^4 - 1$
- Q11.Factorise:
 $x^2 - 32x - 105$
- Q12.Factorise:
 $24x^2 - 41x + 12$
- Q13.Expand the following:
 $(4a - b + 2c)^2$
- Q14.Evaluate the following products without multiplying directly:
 95×96
- Q15.Factorise:
 $8x^2y^3 - x^5$
- Q16.Find the value of a for which $(x + 1)$ is a factor of $(ax^3 + x^2 - 2x + 4a - 9)$.
- Q17.Find the value of a for which the polynomial $(x^4 - x^3 - 11x^2 - x + a)$ is divisible by $(x + 3)$.
- Q18.Factorise the following:
 $\left(2x + \frac{1}{3}\right)^2 - \left(x - \frac{1}{2}\right)^2$
- Q19.If $a^2 + b^2 + c^2 = 250$ and $ab + bc + ca = 3$, find $a + b + c$.
- Q20.If $a + b + c = 9$ and $ab + bc + ca = 40$, find $a^2 + b^2 + c^2$.