**HOLIDAY HOMEWORK**

**CLASS IX**

***CHAPTER 1***

**1. Find six rational numbers between 3 and 4.**

**2. Find five rational numbers between**

**3. Show how can be represented on the number line.**

**4. Write the following in decimal form and say what kind of decimal expansion each has : i) ii) iii) iv)**

**5. Express the following in the form , where p and q are integers and q0**

**i) ii)**

**6. Write three numbers whose decimal expansions are non-terminating and non-recurring.**

**7. Visualise 3.765 on the number line , using successive magnification.**

**8. Visualise on the number line , up to 4 decimal places.**

**9. Simplify each of the following expressions :**

**i) ii)**

**iii) iv)**

**10. Rationalise the denominators of the following :**

**i) ii)**

**11. Find i) ii)**

**12. Find i) ii)**

***CHAPTER 2***

**1. Find p(0), p(1) and p(2) for each of the following polynomials :**

**i) ii)**

**2. Find zero of the polynomial in each of the following cases :**

**i) p(x)=x+5 ii) p(x)=2x+5 iii) p(x)=3x**

**3. Find the remainder when is divided by**

**4. Find the remainder when is divided by**

**5. Determine which of the following polynomials has (x+1) a factor :**

**i) ii)**

**6. Find the value of , if is a factor of in each of the following cases :**

**i) ii)**

**7. Factorise :**

**i) ii)**

**8. Factorise :**

**i) ii)**

**9. Use suitable identities find the product (x+8)(x-10)**

**10. Evaluate the following products without multiplying directly :**

**i) 95 x 96 ii) 104 x 96**

**10. Expand each of the following using suitable identities :**

**i) ii)**

**11. Factorise**

**12. Evaluate the following using suitable identities :**

**i) ii)**

**13. Factorise each of the following :**

**i) ii)**

**14. Verify**

**15. Factorise**