Kendriya Vidyalaya Porbandar

Vacation Homework

Class: 10th B   **Subject: Mathematics**

Section A

1. HCF of 40,18 and 25 is
   - a. 2
   - b. 9
   - c. 25
   - d. 1
2. If $\propto$ and β are the zeroes of polynomial $ax^2 + bx + c$ find the value of $\alpha^2 + \beta^2$.
3. There is a circular path around a sports field. Meet takes 18 minutes to drive one round of the field. Dev takes 12 minutes. Suppose they both start at the same point and same time. After how many minutes will they meet?
   - a. 36 minutes
   - b. 18 minutes
   - c. 6 minutes
   - d. They will not meet
4. If the sum of zeroes of the quadratic polynomial $3x^2 - kx + 6$ is 3, find the value of k.
5. Largest number that will divide 398, 436 and 542 leaving remainders 7, 11 and 15 respectively is
   - a. 17
   - b. 11
   - c. 34
   - d. 45

Section B

1. Explain why 3x5x7 + 7 is composite number
2. Form a quadratic polynomial whose zeroes are 4 +$\sqrt{2}$ and 4 - $\sqrt{2}$
3. Find the zeroes of quadratic polynomial $\sqrt{3}x^2 - 8x + 4\sqrt{3}$

Section C

1. Two brands of chocolates are available in packs of 24 and 15 respectively. If Sonam buys equal number of chocolates of both kinds, what is the least number of boxes of each kind would she need to buy?
2. Prove that $\sqrt{2}$ is irrational and hence show that $6+3\sqrt{2}$ is also irrational
3. Show that ½ and -3/2 are the zeroes of the polynomial $4x^2 + 4x - 3$ and verify the relationship between zeroes and coefficients of polynomial.
4. If $\propto$ and β are the zeroes of polynomial $6x^2 - 7x + 2$. Find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$

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Vacation Homework

Class: 9th B   **Subject: Mathematics**

1. Give an example of a monomial and a binomial having degrees of 49 and 105 respectively
2. Find the value of polynomial $7x^2 - 12x + 4$ at x = 0 and x= -2
3. Find 5 rational numbers between following
   a. 1 and 2   b. -2/5 and -1/5   c. 2 and ¾
4. Express the following in p/q form
   a. 0.88888…   c. 3.314444…
   b. 2.5252525…   d. 2.1656565…
5. Find 3 irrational numbers between
   a. 2 and 2.5   b. 4/5 and5/6
6. Simplify
   a. $\dfrac{2}{\sqrt{3}}$ d. $\dfrac{4-\sqrt{5}}{4+\sqrt{5}}$
   b. $\dfrac{15}{\sqrt{3}-5}$
   c. $\dfrac{7}{2\sqrt{5}+\sqrt{2}}$

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Vacation Homework

Class: 6th   **Subject: Mathematics**

1. Insert comma and write according to Indian System
   - a. 12345123
   - b. 7452021
   - c. 3002001
   - d. 1201201
2. Insert comma and write according to International System
   - a. 12345123
   - b. 14253695
   - c. 4500250
   - d. 7512002
3. Write the predecessor of the following
   - a. 1254
   - b. 3245
   - c. 251
   - d. 659
4. Write the successor of the following
   - a. 360575
   - b. 2575
   - c. 123
   - d. 95
5. The distance between the school and Reena's house is 1 km 480 m. Everyday she walks both ways. What distance does she cover in 6 days of a week?
6. Find the difference between the greatest and the least 5-digit number that can be written using the digits 7, 5, 2, 4, and 3 each only once.
7. The smallest whole number is __.