Name: _____   Date _____

Topic: Nature of Roots - Sums and Products of Roots- Worksheet 1

Do the following:

$X^2 - 2X - 15 = 0$	**1.**	**Find the sum of the roots.**
	2.	**Find the product of the roots.**
Roots: $2+\sqrt{3}$ and $2-\sqrt{3}$	**3.**	**Find the sum of the roots.**
	4.	**Find the product of the roots.**
	5.	**Write the quadratic equation for roots given on the left.**
$6p^2 + 4p + 74 = 0$	**6.**	**Find the sum of the roots.**
	7.	**Find the product of the roots.**
Roots: $\sqrt{5}$ and $-\sqrt{3}$	**8.**	**Write the quadratic equation for roots given on the left.**
$4x^2 + 12x + d = 0$	**9.**	**If one of the roots is 6, find the other root for the equation given on left.**
	10.	**Find the sum of the roots.**

Topic: Nature of Roots - Sums and Products of Roots- Worksheet 2

Do the following:

$X^2 - 3X - 18 = 0$	**1.**	**Find the sum of the roots.**
	2.	**Find the product of the roots.**
Roots: $4+\sqrt{5}$ and $4-\sqrt{5}$	**3.**	**Find the sum of the roots.**
	4.	**Find the product of the roots.**
	5.	**Write the quadratic equation for roots given on the left.**
$8p^2 + 2p + 70 = 0$	**6.**	**Find the sum of the roots.**
	7.	**Find the product of the roots.**
Roots: $\sqrt{7}$ and $-\sqrt{4}$	**8.**	**Write the quadratic equation for roots given on the left.**
$x^2 + 17x + d = 0$	**9.**	**If one of the roots is 8, find the other root for the equation given on left.**
	10.	**Find the sum of the roots.**

Name: _____   Date _____

Topic: Nature of Roots - Sums and Products of Roots-3 Worksheet

Do the following:

    1.   **Find the sum of the roots.**

$X^2 - 10X - 12 = 0$ **2.**   **Find the product of the roots.**

    3.   **Find the sum of the roots.**

    4.   **Find the product of the roots.**

Roots: 12+√9 and 12-√9

    5.   **Write the quadratic equation for roots given on the left.**

    6.   **Find the sum of the roots.**

$6p^2 + 8p + 40 = 0$ **7.**   **Find the product of the roots.**

    8.   **Write the quadratic equation for roots given on the left.**

Roots: √11 and -√8

    9.   **If one of the roots is 10, find the other root for the equation given on left.**

$x^2 + 16x + d = 0$

    10.   **Find the sum of the roots.**

Name: _____   Date _____

Topic: Nature of Roots - Sums and Products of Roots-4 Worksheet

Do the following:

1. **Find the sum of the roots.**

$X^2 - 14X - 20 = 0$

2. **Find the product of the roots.**

3. **Find the sum of the roots.**

4. **Find the product of the roots.**

Roots: 10+√3 and 10-√3

5. **Write the quadratic equation for roots given on the left.**

6. **Find the sum of the roots.**

$4p^2 + 2p + 60 = 0$

7. **Find the product of the roots.**

8. **Write the quadratic equation for roots given on the left.**

Roots: √13 and -√6

9. **If one of the roots is 6, find the other root for the equation given on left.**

$x^2 + 18x + d = 0$

10. **Find the sum of the roots.**