Name _____ Time: _____

Date ___ / ___ / ___ Score _____

MultRoots (Number Dojo Level 302)
High School Worksheet Set E

Instructions: Fold the bottom portion of this page under—to hide the answers. Give yourself 5 minutes to complete as many problems as you can. Score this worksheet like a Number Sense test, giving yourself 5 points for every correct answer, less 4 points for every skipped or incorrect answer. High score is a 200.

1) The product of the roots of $2x^2 - 4x - 8 = 0$ is _____
2) The product of the roots of $n^2 - 4n - 5 = 0$ is _____
3) The product of the roots of $2x^2 - 6x - 9 = 0$ is _____
4) The product of the roots of $x^2 - 25 = 0$ is _____
5) The product of the roots of $5x^2 - 2x - 3 = 0$ is _____
6) The product of the roots of $x^2 - 5x - 36 = 0$ is _____
7) The product of the roots of $2x^2 + x - 3 = 0$ is _____
8) The product of the roots of $x^2 - 49 = 0$ is _____
9) The product of the roots of $3x^2 - 2x - 8 = 0$ is _____
10) The product of the roots of $3a^2 - 8a - 3 = 0$ is _____
11) The product of the roots of $7x^2 - 19x - 6 = 0$ is _____
12) The product of the roots of $3x^2 - 2x - 5 = 0$ is _____
13) The product of the roots of $4x^2 + 5x = 0$ is _____
14) The product of the roots of $3x^2 - 11x + 10 = 0$ is _____
15) The product of the roots of $n^2 + 5n - 14 = 0$ is _____
16) The product of the roots of $6n^2 + n - 5 = 0$ is _____
17) Product of the roots of $ax^2 + 12x + 18 = 0$ is -6; a = __
18) The product of the roots of $9x^3 + x^2 + 10x = 15$ is ___
19) The product of the roots of $2x^3 - 7x^2 + 5x - 14 = 0$ is __
20) The product of the roots of $(2x - 3)(3x - 8) = 0$ is ___
21) The product of the roots of $3x^2 + 8x = 3$ is _____
22) The product of the roots of $5x^2 + 4x - 3 = 0$ is _____
23) The product of the roots of $4x^3 - 2x^2 + x - 1 = 0$ is ___
24) The product of the roots of $7x^3 + 4x^2 + 5x + 3 = 0$ is __
25) The product of the roots of $3x^3 - 4x^2 - x - 2 = 0$ is ___
26) The product of the roots of $7x^2 - 4x + 3 = 0$ is _____
27) Product of roots: $4x^4 - 3x^3 + 3x^2 - 4x + 3 = 0$ is _____
28) Product of roots: $12x^4 - 9x^3 - 2x^2 + 13x + 6 = 0$ is ___
29) The product of the roots of $3x^2 + 4x - 5 = 0$ is _____
30) The product of the roots of $(2x - 3)(x - 6) = 0$ is _____
31) The product of the roots of $7x^3 - 2x^2 - x - 3 = 0$ is ___
32) The product of the roots of $(x + 3)^2 = 0$ is _____
33) The product of the roots of $(2x - 3)^3 = 0$ is _____
34) The product of the roots of $2x^2 - 7x + 8 = 0$ is _____
35) The product of the roots of $3x^3 - 2x^2 + 5x + 2 = 0$ is __
36) The product of the roots of $4x^2 + 5x + 3 = 0$ is _____
37) The product of the roots of $5x^3 + 2x^2 - 5x + 3 = 0$ is __
38) The product of the roots of $(2x - 3)(x + 4) = 0$ is _____
39) The product of the roots of $2x^3 + 5x^2 - x - 6 = 0$ is ___
40) The product of the roots of $(x + 5)^2 - 3 = 0$ is _____

- - - - - - - Fold the bottom portion under to hide the **Answer Key** below - - - - - - -

1) -4
2) -5
3) -9/2 or -4.5
4) -25
5) -3/5 or -.6
6) -36
7) -3/2 or -1.5
8) -49
9) -8/3
10) -1
11) -6/7
12) -5/3
13) 0
14) 10/3
15) -14
16) -5/6
17) -3
18) 5/3
19) 7
20) 4
21) -1
22) -3/5 or -.6
23) 1/4 or .25
24) -3/7
25) 2/3
26) 3/7
27) ¾ or .75
28) ½ or .5
29) -5/3
30) 9
31) 3/7
32) 9
33) 27/8 or 3.375
34) 4
35) -2/3
36) ¾ or .75
37) -3/5 or -.6
38) -6
39) 3
40) 22