Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Algebra radicals and complex numbers quiz review

\* show all work \*no decimals permitted \*all answers in simplest radical form, including no radicals on denominator

Simplify

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | 2. | 3. | 4. |
| 5. | 6. | 7. | 8. |

ADD/SUBTRACT

|  |  |  |  |
| --- | --- | --- | --- |
| 9. 10 + 8 | 10. 19 - | 11. + 5 | 12. 4 - |
| 13. (3 + 9i) – (3 – 9i) | 14. (2 + i) + (8 – 10i) | 15.  (3 - ) + (5 + ) | 16.  (-9 + ) – (5 - ) |

SIMPLIFY

|  |  |  |  |
| --- | --- | --- | --- |
| 17. i37 | 18. i80 | 19. i99 | 20. i78 |

MULTIPLY

|  |  |  |  |
| --- | --- | --- | --- |
| 21. (3)(5) | 22. (4 - ) | 23. (3) | 24. (10 + ) |
| 25. (10i)(4i) | 26. (-5i)(2i) | 27. (3i)(2i)(5i) | 28. 5i(i) |
| 29. (3 + 5i)(3 – 5i) | 30. (4 + 6i)(6 – 4i) | 31. (3 – 4i)(8 – 2i) | 32. (3 + 6i)(8 – i) |

DIVIDE/REDUCE.

|  |  |  |  |
| --- | --- | --- | --- |
| 33. | 34. | 35. | 36. |
| 37. | 38. | 39. | 40. |
| 41. | 42. | 43. | 44. |