Algebra 2 TEST 3.2 Review **DO ON OWN PAPER!**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

I. Estimate to the nearest hundredth with your calculator

|  |
| --- |
| 1.  |

IV. Simplify. Leave answers exact. NO DECIMALS.

|  |  |  |
| --- | --- | --- |
| 2. $√36$ | 3. $√12$ | 4.. $-2√75$ |
| 5. $\frac{√2}{√18}$ | 6. $\frac{√4}{√3}$ | 7. $\sqrt{\frac{2}{50}}$ |
| 8. $\sqrt{15}\*\sqrt{12}$ | 9. $\sqrt{5}\*4\sqrt{2}$ | 10. $\sqrt{6}+\sqrt{24}$ |

Complex Number Operations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 11.  | 12.  | 13.  | 14.  | 15.  | 16.  |
| 17.  | 18.   | 19.  | 20.  | 21.  | 22.  |
| 23.  | 24. $\left(6+4i\right)²$ | 25. (3-2i)-(5+9i) | 26. $\frac{3+4i}{2-3i}$ | 27.   | 28.   |

Solve by taking the square root of both sides. SHOW ALL WORK.

|  |  |  |  |
| --- | --- | --- | --- |
| 29. $x^{2}+9=0$ | 30. - | 31. $x^{2}$+ 16 = -9 | 32. $12-x^{2}=16$ |

1. 14.32 2. 6 3. $2\sqrt{3}$ 4. $-10\sqrt{3}$ 5. $\frac{1}{3}$ 6. $\frac{2\sqrt{3}}{3}$ 7. $\frac{1}{5}$ 8. $6\sqrt{5}$ 9. $4\sqrt{10}$ 10. $3\sqrt{6}$

11. $2i\sqrt{6}$ 12. $5i\sqrt{3}$ 13. 1 14. $i$ 15. 10i 16. $-5\sqrt{11}$ 17.$3i\sqrt{30}$

18. -12+15i 19. 7 + 1i 20. 5 – 37i 21. 52 22. -5i

23. $\frac{7i}{-3}$ 24. 20 + 48i 25. -2 – 11i 26. $\frac{-6+17i}{13}$ 27. $\frac{6+8i}{25}$ 28. $\frac{-3+i}{2}$ 29. $\pm 3i$ 30. $\pm \frac{5}{2}i$ 31. $\pm 5i$ 32. $\pm 2i$