

REVIEW: OPERATIONS WITH RADICALS

Date _____ Period _____

Simplify.

1) $-\sqrt{27} - \sqrt{12} + 2\sqrt{3}$

2) $3\sqrt{27} - 2\sqrt{6} - \sqrt{27}$

3) $-3\sqrt{6} + 2\sqrt{24} + 2\sqrt{27}$

4) $2\sqrt{6} - \sqrt{6} - 3\sqrt{2}$

5) $\sqrt{5}(\sqrt{10} - \sqrt{6})$

6) $\sqrt{10}(\sqrt{10} + 2)$

7) $\sqrt{6}(\sqrt{3} + 2)$

8) $\sqrt{6}(-3\sqrt{3} + 5)$

9) $(1 + \sqrt{3})(-1 + \sqrt{3})$

10) $(3 + \sqrt{5})(-1 - 5\sqrt{5})$

11) $(-2 + 4\sqrt{2})(-3 + \sqrt{2})$

12) $(5 + \sqrt{2})(-1 + \sqrt{2})$

13) $\frac{2}{\sqrt{3}}$

14) $\frac{-5 + \sqrt{5}}{3\sqrt{3} - \sqrt{5}}$

Solve each equation. Remember to check for extraneous solutions.

15) $\sqrt{36 - 6m} + 6 = 12$

16) $-8 = -8\sqrt{v+3}$

17) $2 + \sqrt{r-8} = 4$

18) $-2 = \sqrt{5n+9} - 5$

19) $\sqrt{-5-2x} - 1 = 2$

20) $\sqrt{4n+1} - 7 = -2$