Name _____ Date _____

MAT 1275 – Mr. Kan Radicals

1) Watch this video on radicals: https://youtu.be/WI10UlLgHwg?si=DuMlWyMdT-vZbW_I

2) Multiply and simplify when necessary: $\sqrt{7} * 7$. Is the result a rational or irrational number? Circle one.

3) Multiply and simplify when necessary: $\sqrt{2} * \sqrt{6}$. Is the result a rational or irrational number? Circle one.

4) Multiply and simplify when necessary: $\sqrt{5} * \sqrt{5}$. Is the result a rational or irrational number? Circle one.

5) Multiply and simplify when necessary: $(\sqrt{5} - \sqrt{2})(\sqrt{5} - \sqrt{2})$. Is the result a rational or irrational number? Circle one.

6) Multiply and simplify when necessary: $(\sqrt{5} + \sqrt{2})(\sqrt{5} - \sqrt{2})$. Is the result a rational or irrational number? Circle one.

7) Write the conjugate of $7 - \sqrt{6}$:

8) Write the conjugate of $\sqrt{13} + \sqrt{8}$:

9) Rationalize the denominator: $\frac{2}{4+\sqrt{3}}$

10) Watch this video on radical equations: https://youtu.be/3jwwZA8FC1g?si=drqD71T59XlhP93M

11) Why is it necessary to check your answer on a radical equation?

12) Solve and check: $\sqrt{2x + 5} + 5 = 10$