ALGEBRA CONCEPT ASSESSMENT REVIEW

1. Place the epxression $\dfrac{x^2 - x}{x(x-1)}$ in lowest terms. Use the exclusion rule when necessary.

2. Place the expression $\dfrac{\sqrt[4]{uv^4}u}{3u^3}$ in lowest terms. Use the exclusion rule when necessary.

3. Write the expression $\dfrac{u}{u+4} + \dfrac{4}{u-4}$ as a single fraction. Your final answer should contain no common factors.

4. Use the method of completing the square to solve the equation $4t^2 - 16t = 9$.

5. Use the Distributive Rule to expand the product $(3 - 2y)^2 (y - t)$.

6. Solve the equation $\dfrac{9x}{4} + \dfrac{y^2}{6} = 2x - 3$ for the variable x.

7. Solve the equation $2 = \dfrac{1-y}{y+1}$ for the variable y.

8. Solve the equation $4w^2 + 3w - 1 = 0$ for the variable w.

9. Solve the equation $\dfrac{4}{b} + \dfrac{1}{b+1} = 1$ for the variable b.

10. Find the solution set for the inequality $3z - 5 < z + 1$. Write your answer in interval notation.