

Algebra to TMUA

Follow-up questions

Name: _____ Date: _____

Return to the questions matched to your diagnostic. Work without a calculator and explain each step. Use extra paper if needed.

1. For $x > 4$, simplify $\frac{\sqrt{(4-x)^2}}{x-4}$.

2. Simplify $\frac{x^3 - 125}{x^2 - 25}$, stating all excluded values.

3. Solve $\frac{x+2}{x-1} \leq 3$.

4. Find all real x such that $x^2 \leq 16$ and $x > -1$.

Follow-up questions

5. Solve $|3x + 2| = x + 4$.

6. A quadratic g opens upwards and has roots 1 and 7. Find all x such that $g(3x + 1) > 0$.
7. A positive real number x satisfies $x + 1/x = 5$. Find $(x - 1/x)^2$.
8. For which values of $k > 0$ does $|x^2 - 9| = k$ have exactly three distinct real solutions?