

Name: _____

Directions: Show all work. No credit for answers without work.

1. [4 parts, 2 points each] Simplify the following expressions.

(a) $(a + b)^2$

(c) $(\sqrt{x})^{-4}$

(b) $\frac{a}{b} + \frac{c}{d}$

(d) $\frac{1}{1 + \frac{1}{x}}$

2. [2 points] Solve the equation $(x + 2)^2 = x + 14$ for x . Find all solutions.