Algebra 3 Assignment # 9

Review Worksheet

Solve for x please.

(1) $\sqrt{2x + 1} = x - 1$

(2) $\sqrt{8x + 1} + 5 = 2x$

(3) $\sqrt{2x^2 - 1} = x + 2$

(4) $2\sqrt{x + 3} = 1 - 5x$

(5) $\sqrt{x^3 + 4x^2 + 1} = x + 3$

(6) $\sqrt{4x + 1} - \sqrt{x - 1} = 2$

(7) $\frac{x + 1}{3} - \frac{x^2 + 1}{12} = 1 - \frac{2x + 5}{4}$

(8) $\frac{2x + 1}{x^2 - x - 6} + \frac{3x - 1}{x^2 + 5x + 6} = \frac{20x}{x^2 - 9}$

(9) $\frac{x - 2}{x + 2} - \frac{2x + 5}{x - 1} = \frac{x - 22}{x^2 + x - 2} - 2x$

(10) $\frac{4x + 3}{x^2 - 3x + 2} - \frac{9x + 5}{x^2 - 4x + 3} = \frac{2x - 5}{x^2 - 5x + 6}$

(11) $\frac{3x + 1}{x^2 - x} + \frac{2x - 1}{x^2 + x} + \frac{2}{x} = \frac{6}{x^3 - x}$

(12) $\frac{x - 1}{x^2 + 3x + 2} + \frac{9x}{x^2 - 4} = \frac{x^2 + 5}{x^2 - x - 2}$

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Answers

(1) 4

(2) 6

(3) $5\ ,\ -1$

(4) $-\frac{11}{25}$

(5) $-1\ ,\ 2$

(6) $\frac{10}{9}\ ,\ 2$

(7) $5 \pm \sqrt{31}$

(8) $\frac{2}{15}$

(9) $2\ ,\ -\frac{7}{2}$

(10) $\frac{4}{7}$

(11) $\frac{6}{7}$

(12) $1\ ,\ 8$