

Alg 1 Mon Week 13

Warm Up

Simplify each radical expression. (Solve #6.)

1. $\sqrt{3} + \sqrt{12}$

2. $\sqrt{300}$

3. $\frac{\sqrt{18}}{\sqrt{12}}$

4. $\sqrt{x-2} = 4$

5. $(3\sqrt{2} - 2\sqrt{5})(4\sqrt{2} + 2\sqrt{5})$

use a box

6. *Solve and check:* $\sqrt{2x+4} = \sqrt{3x}$

Notes 11.1 Simplifying Rational Expressions

Problem 1 Simplifying a Rational Expression

What is the simplified form of $\frac{x-1}{5x-5}$?

Got It? 1. What is the simplified form of the expression?

a. $\frac{21a^2}{7a^3}$

b. $\frac{18d^2}{4d+8}$

c. $\frac{2n-3}{6n-9}$

Problem 2 Simplifying a Rational Expression Containing a Trinomial

What is the simplified form of $\frac{3x-6}{x^2+x-6}$?

Got It? 2. What is the simplified form of the expression?

a. $\frac{2x-8}{x^2-2x-8}$

b. $\frac{a^2-3a+2}{3a-3}$

c. $\frac{6z+12}{2z^2+7z+6}$

Problem 3 Recognizing Opposite Factors

What is the simplified form of $\frac{4-x^2}{7x-14}$? State any excluded values.

Got It? 3. What is the simplified form of the expression?

a. $\frac{2x-5}{5-2x}$

b. $\frac{y^2-16}{4-y}$

c. $\frac{3-9d}{6d^2+d-1}$

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Algebra 1 Wk 13 Mon

Radical Wksht #1

Name _____

(1-4) Simplify completely, show ALL work:

1. $4\sqrt{17} - \sqrt{17} - 17$

2. $-3\sqrt{19} - 5\sqrt{19} - 2\sqrt{7} + 7\sqrt{7}$

Answer: _____

Answer: _____

3. $\sqrt{48} - 5\sqrt{3}$

4. $2\sqrt{28} - 3\sqrt{63}$

Answer: _____

Answer: _____

(5-8) Multiply & simplify, show all work

5. $\sqrt{5}(3 - 6\sqrt{5})$

6. $\sqrt{6}(2\sqrt{6} - 8)$

Answer: _____

Answer: _____

7. $(\sqrt{11} + 7)(\sqrt{11} - 4)$

8. $(3\sqrt{7} + 2)(3\sqrt{7} - 2)$

Answer: _____

Answer: _____

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(9-12) Divide and simplify, show all work .

9. $\sqrt{\frac{81}{63}}$

Answer: _____

10. $\sqrt{\frac{8}{48}}$

Answer: _____

11. $\frac{\sqrt{24}}{\sqrt{12}}$

Answer: _____

12. $\frac{\sqrt{5}}{\sqrt{10}}$

Answer: _____

(13-14) Simplify, showing all work: (no decimals)

13. $\frac{6 \pm 18\sqrt{61}}{30}$

Answer: _____

14. $\frac{12 \pm 12\sqrt{26}}{4}$

Answer: _____